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MEMORIAL TO FORMER PRESIDENT HENRY C. ADAMS¹

PRESIDENT JACOB H. HOLLANDER, PRESIDING

PROFESSOR J. H. HOLLANDER.—One of the penalties of advancing years in the life of an association, as of an individual, is that we see those who have been with us in earlier days, pass. Thirty-four years is a longer period in the life of a learned society than of its members. Those who enter are already at manhood, and the span of their scientific affiliation is inevitably briefer. One looks back with dismay as one, insensibly, passes into the ranks of elder statesmen. It seems not so very long ago since I attended my first meeting. It was a very much smaller company than this, hardly more than one hundred; for the Association was not a fourth of its present strength. At that meeting, as at many thereafter, one figure stood out clearly—Henry Carter Adams. It was a pleasant figure, for he was good to look upon—his manner debonair, his voice delightful, his bearing grave and courteous.

Then, as always, my regard for Adams was not only scientific admiration but institutional pride; for he was a Johns Hopkins man. Our "first graduate" we called him, in a playful sense. He had been one of the brilliant company of young scholars who gathered in Baltimore when the doors of Johns Hopkins were thrown open, and the circumstance of alphabetical arrangement placed his name first in the roster of our alumni. His days at Johns Hopkins were happy and profitable, and we, on our part have been proud of his achievements. We welcomed his return to Baltimore from time to time, on great occasions, as one whom we delighted to honor, and his visits were memorable by some message of weight and distinction. At one time it seemed likely that he might complete his academic career in Baltimore; but the demands made upon his time by public service precluded complete transfer to academic duties, and he remained in the forefront of our most distinguished graduates.

It is right that a science should honor its leaders, and it is in this spirit that, in the midst of our scientific deliberation, we have paused for a brief moment, to pay our devoted respect to Adams' life and work, as it may be told by those who in one relation or another stood closest to him.

¹Meeting of friends of Dr. Adams at the annual meeting of the American Economic Association held in Pittsburgh, December 29, 1921.

PROFESSOR R. T. ELY.—Mr. President and friends: Like Hollander, I have always thought of Professor Adams as a man of most pleasing personality. There are two words that occur to me as I think of him—sweetness and light. His was an amiable and lovable personality. No one could come in contact with him as I did and not feel him to be a true friend. He was cultured; he was refined; he loved beautiful things; he was a seeker after truth; he was one of the younger progressive group at the time this Association was established. Adams was always ready to do his part in any common undertaking and he did not think about any reward or honor that might come to him. He was never a seeker after office. Every office that came to him came unsought.

The early days of this Association were days of struggle. Only those who were closely associated with the work, perhaps, have any idea how severe that struggle was. There were many organizations coming into existence and it was not by any means a foregone conclusion that the American Economic Association would be the one to survive.

I was the secretary for the first seven years of the life of this Association. At that time it seemed necessary that one or two persons should hold office until the Association was thoroughly established and on a firm foundation, and on that account and that account alone I remained secretary for the first seven years. On that account and that account alone, President Walker remained president for seven years. We did not have any "finances" to speak of—we often did not know where "the next dinner" was coming from, but in some way we managed to pull through. Now, I mention that in order to emphasize the services of Adams in those days of struggle, for your secretary even with the help of General Walker could not have "carried on" without the whole-hearted coöperation of men like H. C. Adams.

When we were getting up our first volume for publication it seemed to me important that we should have a monograph from Professor Adams, so I asked him to put into shape an address that he had given and the result was "Relation of the State to Industrial Action," which has had a profound influence upon economic thought and economic legislation. Perhaps no one of us would agree with all his thoughts today; I doubt if he would himself agree with all of them today. But some things stand out very clearly in that monograph and there was one phrase which I think reflected his ambition; that was "to raise the level of competition to a higher level." That was something he had in mind and something he ardently desired.

He was a thinker first of all—and I remember a discussion that we had years ago. It was in Philadelphia, probably at one of our meetings or walking through the street, and I expressed some doubt as to

certain phases of life. Adams replied: "If we only think right we should not worry about the rest." And I think that was characteristic of the man—straight thinking is what he was anxious should be attained. Action would then take care of itself.

It is hard to express what one feels on an occasion like this. I did not know until a short time ago that I was to be called upon to speak but I do desire to say of him that, as economists, we can be proud of him. His life was excellent and his aims were high.

PROFESSOR E. R. A. SELIGMAN.—It is a great privilege to be permitted to take part in this tribute to a man who was so universally respected and beloved. Henry Carter Adams was born in Iowa, December 31, 1851, and died on August 11, 1921. He came of New England Puritan stock on both sides. One of his ancestors on the paternal side settled at Cambridge in 1623. His father, Ephraim Adams, was a member of that enthusiastic group of Andover theological students who went in 1842 almost on foot, we might say, from New England to the wilderness as it existed in Iowa in those early days, in order to spread the gospel. It was this little "Iowa band" of Congregationalists that was largely instrumental in founding Grinnell College, the first college in Iowa. Because of a last liberal donation from a Mr. Carter of New England, which made possible the starting of the college, Henry received the middle name of Carter.

Reared in the intense religious and intellectual atmosphere of Puritan missionary life, he was destined for the ministry. He was delicate as a boy, and at one time it was even doubtful whether he could endure the rigor of the Iowa winters and the discomforts of frontier life. He was compelled on account of his physical condition to live much in the open and for years he traversed the rolling prairies with a gun and a horse, seeking to acquire the strength which was so sorely needed and laying the foundation for that passionate love of nature which characterized him in later life. As a consequence, his early education consisted almost entirely of the training in the languages that his father was able to impart to him—Greek, Latin, and Hebrew. He was almost nineteen years of age before he received his first formal instruction. In 1869, however, he was able to enter Denmark Academy, and later to attend Grinnell College, from which he graduated in 1874. At that time he still intended to devote himself to the ministry, and accordingly after a year's teaching at Nashua, Iowa, he entered Andover Theological Seminary in 1875. Then, however, moved by the spirit of the age, he had his attention turned to economic and social questions and he determined to study economic science, not so much for itself as constituting an avenue through which to reach his goal of ethical reform.

It was now that by chance he heard of the founding of a new insti-

tution at Baltimore, the Johns Hopkins University. Having determined to enter it, he wrote on a few days' notice an article in competition for one of the new fellowships and he was fortunate in being one of the ten, among more than three hundred applicants, to receive a fellowship. This took him to Johns Hopkins and to Baltimore, which was a revelation to him. There it was that he mingled with the galaxy of remarkable men who were associated together as teachers; there it was that he first saw something of the life of the factory worker; there it was that he revelled in the opportunities for music and art, for which he had been silently longing but which he had been unable to find in his country home. Thus he developed into the man as he was when we came to know him a few years later. After attaining his doctor's degree in 1878—the first one conferred by the young university—he decided to do what the rest of us did, namely, to go abroad in order to secure his advanced training in economics and social science. Without any funds, he attracted the interest and affection of President Gilman to such an extent that the money was soon provided. He studied at Oxford, at Paris, at Berlin, and at Heidelberg for two years, and he there acquired a familiarity with the newer methods and the newer outlook which were to differentiate the young acolytes of economics on their return to this country.

Curiously enough, he was started on his career through a mistake. Andrew D. White was, at that time, American Minister to Berlin, and was exceedingly kind to all of us younger students who were pursuing our work in Germany. He had met Adams there, but only casually; and, when at a watering place in Germany, he sent for Adams in order to discuss with him the possibility of doing some work at Cornell. He had intended to send for the other Adams—Herbert B. Adams, the historian—and it was only after some little time that Henry discovered that he was the wrong man. I mention this because it was only a few years ago that he was again mistaken for another Adams. Here, however, to his relief, he found he was the wrong man. For when Secretary McAdoo, thinking that he was talking to Thomas S. Adams, offered Henry a position in the Internal Revenue Department, Henry was both complimented and embarrassed, as he was disinclined to accept. In 1878, however, although he soon discovered the error, he did not give up the fight. Mr. White was at that time also interested in economic questions and when Adams said he thought he had a message to give and he could say something to the boys at Ithaca, Mr. White asked him to draw up a syllabus. Adams worked all night and handed in his syllabus in the morning, with the result that when he returned to this country, he received an invitation to deliver lectures not only at Cornell, but also at Johns Hopkins and Michigan.

It was during these years that he still pursued his main quest of get-

ting economics and ethics in some way or other to align themselves together. And yet, you will ask, how did it happen that his first book should be devoted to the uninteresting subject (as it seemed at that time) of public debts. He told me the story once. It was this: Adams was very ambitious and eagerly desired to make a reputation. At the same time he knew that his views on social problems were not wholly approved by a great number of people. He therefore determined to seek a topic about which nobody else in the country would know anything, and which would not involve any questions of radicalism in social policy. He cast about for some time and finally selected this particular subject. That explains why he started out with public finance, and after five years of strenuous work he made, as he had hoped, a ten-strike with his admirable book on public debts.

In the meantime, he had never forgotten his first love; the very paper to which Professor Ely has referred was originally an address which was delivered before a club in New York in trying to make the lawyers and business men realize the close connection of economics and ethics. The point that Professor Ely has emphasized as characteristic of Adams is the cardinal one in the interpretation of his personality. It was his desire to make people realize that they move upward and onward solely through moral achievement. This can be illustrated by an important episode. During the early days of the Gould railroad strike in 1886, there was to be at Cornell University a discussion of the subject. The engineer who had been invited could not be present, and at a moment's notice Adams was asked to step into the breach and address the students. He spoke in his accustomed lucid way, and, as he afterwards said, it was the first time he had ever talked to so large an audience with a realization that he was making an impression, and that his audience was being influenced by his opinions. Unfortunately, the daily papers took the matter up and in their usual fashion, gave a distorted version of his talk. The upshot was that Mr. Henry Sage, the great benefactor of Cornell, came to President White and said: "This young man must go. He is undermining the very foundation of society." President White very reluctantly concluded that he had no alternative but to acquiesce. The alumni at once desired to make a test case. But Adams refused to allow this. It is to the everlasting credit of President Angell that immediately after this episode he extended to Adams an invitation to associate himself permanently with the University of Michigan. As a consequence Adams packed his tents and withdrew silently from Cornell. It is interesting to note that in 1890 he was asked by a unanimous vote of the Cornell authorities, of which Mr. Henry Sage was still a member, to return to Cornell. But Adams' loyalty to Michigan was now so great that he declined the flattering offer.

Adams' subsequent career was a distinguished one. It was now that he gathered about him a band of students who admired and loved him. But he was soon called upon to render very important public service. When the Interstate Commerce Commission was organized in 1887 and Chief Justice Cooley was called to the head, Cooley saw that one of the fundamental objects to be accomplished was the collection of statistics. He accordingly summoned his young colleague, Adams, to Washington. As we all know, by the end of the century virtually the only thing that remained of the vast volume of work attempted by the Commission during the first decade of its existence was the work that Adams had accomplished. Although section 20 of the new law required annual reports from the railways and prescribed the items that should be included, the Supreme Court held that there was no procedure provided to enforce compliance with the section and no penalty for refusal to comply. Moreover, each carrier was keeping its own accounts in a different way and it became exceedingly difficult to formulate any accurate summaries on such disparate material. When the railway bill of 1906 was under discussion in Congress, Professor Adams succeeded in inserting a much more drastic provision. Almost no attention was directed to this point, as the discussion in Congress was centering around the far more important question of the rate-making power. When the law went through, the railways found, to their consternation, that reports had now to be submitted under oath with severe penalties for non-compliance. Above all, the commission was now given power to establish a uniform accounting system for all the railways and to create the board of examiners to see that the accounting regulations were obeyed. The achievements of Adams in this regard will be more fully treated by Professor Dixon.

So great was the reputation that Adams acquired in this way that he was summoned a few years later by the Chinese government to act as its adviser in working out for them a system of accounting adapted to the Chinese system of railroads. Adams went to China in 1913 and remained for four years. I understand that the Chinese government intends to put a monument on his grave, together with a memorial tablet, expressing the government's appreciation of his services.²

Notwithstanding his busy life as a college instructor and as government adviser, Professor Adams always remained true to his original inclinations, as is evident from the fact that for several summers he delivered lectures on ethics and economics in the Plymouth School of Applied Ethics, connected with the Society for Ethical Culture. Adams perhaps contributed as much to the success of that school as any of the more specifically ethical teachers. No one could associate with him,

²The exercises connected with the placing of this tablet are referred to below, p. 414.

even for a short time, without being profoundly influenced by his fine personality. We must also not forget his papers on the social movements and on the social ministry of wealth contributed to the *International Journal of Ethics*.

A word finally as to his scientific achievements in public finance. His doctoral dissertation, *Taxation in the United States, 1789-1816*, was the first study in this field and at once attracted attention. His book on *Public Debts*, published in 1887, quickly became a classic. But it was now followed by a more comprehensive work. Adams was the first American scholar to write a treatise on that topic. It is true, indeed, that, influenced by his continental training, he made an unsuccessful attempt to rechristen the subject, calling his book, after continental precedents, *The Science of Finance*. Today we wisely distinguish between public finance and private finance. So far as the content of the work is concerned, however, it was a remarkable performance, and, like its predecessor on *Public Debts*, shot through with the American spirit. Adams here again very clearly showed that he was, above all, a thinker. This was so widely recognized that his colleagues elected him, after John Bates Clark, to the presidency of the American Economic Association, thus confirming the general verdict that he was after Clark the ablest thinker of the time in this country. So his book on finance is an eminently thoughtful book. Written a generation ago, it is now somewhat out of date, but at the time it was a pathfinder. Had Adams had the opportunity, had his attention not been diverted to this other more insistent work to which allusion has been made, he would have continued in his chosen field. For although we must not forget the admirable practical work that he did in connection with the Tax Commission of Michigan, and the valuation for tax purposes of the Michigan railroads, he was able to give only a small part of his time to public finance. Even recently, he told me—as we talked over his plans together—of his project for a new edition of his book. He never lost interest in the problems of public finance. He felt convinced that they were the most important problems that confronted us. Yet because of his other pressing engagements, he was unable to maintain in the science the primacy which he so quickly achieved.

Yet as I look back upon the many years of intimate association with him, I should say that far more important than the scientist was the man. He possessed remarkable qualities as a friend—not to speak of those as a husband and as a father. He endeared himself to everyone who knew him, and his students, above all, had the greatest possible affection for him. This will no doubt be made evident by some of the succeeding speakers.

When the history of economics comes to be written, I think it may be said without peradventure of doubt that Adams will occupy a place

in the forefront of the ranks of American economists. In public finance, in railroad transportation, in industrial regulation he made notable and permanent contributions to economic science. To those who were privileged to enjoy his friendship, Henry Carter Adams will ever remain the embodiment of all that is gracious and loyal and fine.

PROFESSOR C. H. COOLEY.—There was something about Mr. Adams which it is hardly possible to describe and yet I am conscious that it was this, more than anything else perhaps, that gave him his very great influence, at least over me. I refer to what I may call the distinction of his personality, somewhat in the French sense of the word distinction—something unique and provocative. There is possibly no man that I have known who would be so inadequately described by any mere enumeration of his private virtues or public services. I might almost use the word “romantic” in regard to Adams; I think that his attitude toward life was essentially adventurous. He seemed to accept the precept of Emerson—“Always do what you are afraid to do.” He might hesitate, but he was very likely after all to go ahead and do the thing he feared, and it very often succeeded. He had the highest aspirations and ideals of what he would like to bring to pass and what American life ought to be, ideals and aspirations which he very imperfectly realized. Consequently, those who knew him well were aware that he suffered constantly from moods of self-depreciation and discouragement regarding his work; but these very moods were, in a way, inspiring, because they were the reaction from a high-minded struggle with life.

Mr. Adams had faults and weaknesses, but they were faults and weaknesses that were very closely associated with something in him that was not far from genius. His aspirations and ideals were immense. He was also remarkable for a great sensitiveness about everything that was fine in conduct and about every possible claim upon him of a personal nature. I remember that when he and I were together in Switzerland (when I was a boy and he a young man), we stopped one night at a little Swiss inn. We had breakfast at the inn the next morning and then got on our way. We had traveled several miles when Adams suddenly remembered that he had forgotten to tip the chambermaid for some trivial service she had rendered him. He almost suffered remorse because he had forgotten this tip; indeed he was much inclined to return and give it to her.

There was something in his nature, and I think all who knew him well will agree, that was almost feminine. I think I may say that in my judgment his important conclusions were intuitive, rather than logical. I am aware that no one could give a better account of his intellectual processes than Mr. Adams, but I am inclined to think that

his real method was to see a thing first by inspiration or imagination. He saw it vividly, so that it was quite impossible to shake his belief in anything he did see in that way, and then he would devise a logical approach to this point which he had already reached by what we might call a higher method.

Such traits of a finer spirit as I have mentioned may account, even more than his tangible achievements, for the almost fascinating influence that Mr. Adams exercised over those of us who knew him well.

PROFESSOR F. H. DIXON.—My association with Mr. Adams began very soon after I entered the University of Michigan in 1887 and continued almost without interruption until his death. In connection with our intimate relationship, there are many things that I might say concerning his ideals, his aspirations, his influence. But I have been asked to say something of his connection with the development of railway regulation.

As has already been said, Mr. Adams was asked by Judge Cooley, the first chairman of the Interstate Commerce Commission, to come to Washington, for a part of his time only, for the purpose of organizing a statistical bureau in the newly created regulating agency. He undertook the task somewhat reluctantly, and with the understanding that his connection was to be but temporary. But the larger aspects of the problem appealed to him and as his conviction concerning public regulation developed, he found himself too genuinely devoted to his plans for the future to consider any abandonment of his task. And he remained in this part-time relationship for over twenty years.

When he undertook the task, little if anything had been done along national statistical lines. Aside from beginnings made by a national organization of state railroad commissioners, and by the Association of American Railway Accounting Officers, he found little upon which to build. Section 20 of the new law required annual reports from the railways and prescribed the items that should be included.

Mr. Adams immediately set about to make this report as complete as possible. But he at once encountered obstacles. Railways had not become accustomed to laying their affairs openly before the public. Some of them asserted that they lacked the information. Others declared that it was impossible to compile it, because of expense or its relative inaccessibility. Some flatly denied the right of the Commission to ask for it. Mr. Adams met this difficulty by carrying the question to the courts. But the Supreme Court held that, under the law as it then stood, there was no procedure provided to enforce compliance with section 20 and no penalty for refusal to comply.

Again it developed that the carriers were keeping their accounts in varying fashion and that accurate summaries could not be built up on

foundations of such diverse material. He realized that the real problem lay deeper and that the Commission must have the authority to prescribe the accounting systems of the railways.

With the amendments of 1906 came the opportunity to correct the many weaknesses in the law, and the statistical and accounting sections, through Mr. Adams' efforts, were then put upon their present sound basis. Reports had to be submitted under oath and penalties were provided for non-compliance. Moreover, the Commission was given power to establish a uniform accounting system for all the roads, and to create a board of examiners to see that the accounting regulations were obeyed.

Then began that long series of conferences with the Committee of Twenty-five of the American Railway Accounting Officers' Association out of which gradually emerged the uniform accounting system for the railways of the country. I attended a good many of these meetings. The discussions were frequently very earnest and the tension was often severe. But always at the crucial point in the discussion Mr. Adams would inject the right word and would restore the temperature of the room to normal. Such was his kindly tact and so great was the respect of the members for his judgment and his singleness of purpose that he almost always carried his point. The accounting system has since been extended to other utilities, and into other jurisdictions, but the regulations have all been based upon this pioneer work. The accounting system for public utilities is the work of Mr. Adams and the service that this system now performs for the nation is a monument to his labors.

Mr. Adams had the misfortune that his work was never fully appreciated by the Commission during his years of service. But he never faltered in his purpose or in his conviction as to the significance of his work. It was his belief, amply justified since, that the success of administrative regulation rested upon sound, intelligible, uniform standardized accounts. The Commission realizes this now and calls constantly upon its Bureau of Statistics and Accounts to aid in the solution of its problems of regulation.

I could describe many other activities along the same line in which Mr. Adams' farsighted genius has made permanent contributions. But I will merely mention them for lack of time. The Michigan appraisal, in which Mr. Adams laid down some principles concerning valuation, was a pioneer undertaking which has guided many a valuation since. Mr. Adams' services have been highly prized and frequently drafted in valuation proceedings.

He was called into the service of the Chinese government to devise an accounting system for its government railways. So greatly was his work appreciated that the Chinese delegation in attendance upon

the Disarmament Conference was imposed with the duty of bringing a tablet, the gift of the Chinese government, to be placed on his grave in Ann Arbor in recognition of his services.

Some years ago in an address on taxation, Mr. Adams took up the problem of the "weak and strong road" which compete in the same territory and must necessarily charge the same rates, and advised that rates should be made high enough to keep the weak road in business, and that the excess earnings of the more prosperous road should be taken through taxation. The project was denounced as radically socialistic, yet this is in substance the provision in the present Transportation act of 1920. These are all but illustrations of that pioneer type of mind that saw into the future and saw clearly.

I cannot leave this platform without expressing my own keen sense of obligation to him for the influence he exerted over his students, particularly in directing their thoughts to the importance of public service. And his public service ideals were practical ones, for he put them into very definite concrete form in his many suggestions concerning public regulation. It is difficult to estimate the breadth of his influence in this respect as it is being spread through the agency of the students that have come into contact with him.

Mr. Cooley has referred to the intuitive character of Mr. Adams' thinking. I am constrained to give one interesting instance of this that came under my own observation when I was assisting him in his course in English economic history. As he was one day lecturing, he paused after making an unusually brilliant generalization and remarked audibly, "That's pretty good; I never thought of that before." The remark illustrates what to me was another striking characteristic of Mr. Adams. That was his extreme modesty and self-depreciation. After his retirement from the university, he received many letters from alumni, expressing appreciation of his services to the university and of his influence upon them, and these letters always were read with the shock of pleased surprise. He felt, particularly at the end when his body failed to respond to the urgings of his will and depression frequently overcame him, that his life had been a failure. We all know otherwise and I, for one, am glad to have this opportunity to pay tribute to him and to his influence and his achievements.

PROFESSOR D. FRIDAY.—I belong to very nearly the last generation of students who studied under Professor Adams. I later had the privilege of working with him in a good deal of his public and private practice. Like every admiring student, I have sought from time to time to praise his achievements and I have come to say one thing of him and to add my story to the things other people have said about him. In thinking of his attainments my mind always reverts to the

early 80's. He conceived the idea that we should never have any adequate control of the railroads until we controlled their statistics. That was not a popular opinion at the time he conceived it and he was vilified for it in the extreme. It is very difficult for us to imagine how much he was abused for that action. His diplomacy and pleasing formality, and twenty years of hard work, enabled him to bring order out of chaos, and his system of accounting for railroads is a monument to his work. That, to my mind, is his great achievement; that is the attainment that impressed the student of later years most. It will stand there as a monument to his life as civilization endures.

Another thing that he did, especially for those of us who were students, was to give us an insight into his high ethical vision. I can recall one instance when a group of us were sitting about, visiting, in the wee small hours, and the discussion ran to Adams. Some one remarked about his wonderful influence, and Alvin S. Johnson said that the cause of this influence was not far to seek—that no knight of the Middle Ages had ever fought more valiantly than Adams fought for the coming man.

His career to me is one of the peculiarly romantic things that America has brought forth. Professor Cooley says he was essentially romantic in his outlook, and to this I would add that to me he exemplified sweetness, frankness, and sympathy.

PROFESSOR I. L. SHARFMAN.—However little I can add to what has already been said, with such sincere conviction, concerning the life and work of Professor Adams, I deem it a great privilege to testify on this occasion to his delightful personality, to the breadth of his outlook, to the great influence he always exercised upon all who came into contact with him. Professor Dixon mentioned his modesty of spirit. This modesty was one of the effective sources of the sweetness of his relationship with the men who came under his influence. I recall seeing, in a book of clippings relating to the episode at Cornell which Professor Seligman described, an addendum in his own handwriting to the effect that this was the first time he had realized that anything he said "might possibly be of some importance." He believed not only in liberty in the larger sense, but in personal freedom—for his students as well as for himself and his colleagues. Impatient of undue student supervision, particularly in scholastic matters, he was ambitious to arouse genuine intellectual interests in university men and women. I remember his telling me once how it came about that he entered into the field of economics. His explanation was quite simple. Destined for the ministry, as many distinguished scholars and publicists had been before him, he was early convinced that clear thinking was of greater importance than effective exhortation. For him, it was clear thinking

in the fundamentals of social living that made the strongest appeal. His approach was that of a social philosopher rather than of an economist in the technical sense. Practically all of his academic achievements reflected this vital concern with basic human relationships. Yet, in spite of this outstanding quality, when the opportunity came, he devoted most of a period of twenty-five years, as statistician of the Interstate Commerce Commission, to careful, technical work, and thereby established a solid structure for the control of transportation agencies through accounting and statistical procedure; and when called to China, where the circumstances under which he was to apply his ideas differed essentially from the situation in the United States, he once again found himself capable of putting into effective practice the general accounting principles which he deemed indispensable for the adequate control of railroad transportation. But to the very end, the larger questions of social organization and industrial relationships held his primary interest. When, only about a year before he left our midst, he was host to his club composed of university colleagues, and followed the usual practice of discussing a problem of special personal interest to the speaker, he selected Bertrand Russell's *Proposed Roads to Freedom* as the subject of his paper. For a number of years he was dreaming of returning to a study of the labor problem. Although he would have reached the patriarchal age of seventy had he lived to the end of this month, his intellectual powers were at their height and he was actively planning to carry his work forward. Those of us who have been in intimate contact with him during the last ten years of his life are not only overcome by a keen sense of personal bereavement, but are deeply conscious of a tremendous loss to economic scholarship. We recall in fond memory his gentle spirit and great powers.

PROFESSOR J. B. CLARK.—To all economists the death of Professor Henry C. Adams means the loss of an eminent co-worker, whose name has stood for deep learning, clear thinking and patriotic service. To the older economists of America it means a break in what was like a family circle united by personal ties of sympathy and affection. He was a founder of the American Economic Association, its first vice-president and, at an early date, its president. He contributed greatly to the success of the Association itself and of the sound but liberal thought which it represented. He lived to see opinions which in some quarters had been branded as heretical and even dangerous universally accepted and incorporated into public policy. "Younger economists" was the term sometimes used to describe the founders of the organization which now includes almost every economist in America. Older economists they are today, and they look backward over a long period in every year of which the Association has grown from strength to

strength and served with increasing effect the thought and life of the world. Seen today are nations that have undergone violent transformations and seen also are their concerted efforts to avert further ruin and start the movement of recovery. Unseen is the power of economic truth to make recovery possible.

As armies and navies have gained by applied science an undreamed of power of destruction, so international conferences and courts and the great League of Nations itself may gain, in a similar way, a power of restoration. These great and new organs of peaceful and prosperous living will succeed or fail according as they are or are not guided by basic truths concerning the economic life of the world. Has America had a share—even a leading share—in discovering and applying such truths? If so, it is largely due to the movement that began in Saratoga in 1885—the creating of the American Economic Association—and, in this, *pars magna fuit* Henry Carter Adams. His memory will be honored everywhere, he will be held in deep affection by all who have personally known him and his work will live after him and after all his associates. “The things that are not seen are eternal.”

PROFESSOR F. H. GIDDINGS.—Henry Carter Adams was one of those many-sided men who cannot be pigeonholed. A scientific intellect controlled all his methods, but a deep humanity inspired all his undertakings. Men admired him and also they loved him. His life was devoted to public service and to the discovery of truth, but he had time for friendships and for all things beautiful.

PROFESSOR J. H. HOLLANDER.—Our simple ceremony is at an end. A certain solemnity has come and grown with the hour. It is not entirely the sense of scientific achievements and of public service, but something vaguer and higher. In shadowy outline there looms the fineness of character. We number him among the gallant company of our departed; but our minds drift to the meaning of Mackintosh's phrases: “I have known Adam Smith slightly, Ricardo well, Malthus intimately. Is it not something to say for a science that its three great masters were about the three best men I ever knew?”

*A Chinese Tribute to Professor H. C. Adams**

One of the most affecting and deeply significant ceremonies Ann Arbor ever witnessed took place at the grave of the late Professor Henry C. Adams on Washington's birthday. This was the placing of a monument and tablet on Professor Adams' grave by Dr. F. Chang, a member of the Chinese delegation to the Arms Conference at Washington.

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Some time ago the Ministry of Communications of the Chinese government asked permission to send a memorial to be placed at the grave of Professor Adams, in recognition of the services he rendered the Chinese republic, during the four years from 1913-1917, when he acted as its adviser in working out for them a system of accounting adapted to the Chinese system of railroads. It was this monument, brought to America by the Chinese delegation at Washington, that was officially set up on February 22.

Only a group of the friends and associates of Professor Adams and a number of Chinese students in the University witnessed the ceremony, which was very brief, but marked by the depth of emotion and sincerity of the members of the Chinese delegation.

After a brief introductory speech by Mr. Chen, the president of the Chinese Students' Club, Mr. Chang delivered the address, a beautiful tribute to the services Professor Adams had rendered his native land. Among other things Professor Adams gave, Dr. Chang said:

the benefit of his mature knowledge and wisdom in the service of a country in which the problems of accounting relating to the Chinese Government Railways, built and operated under the terms of different foreign loans and systems, were most perplexing and were offering great impediments to the future development of railways in China. During the four years from 1913 to 1917, when he acted as adviser to the commission on the unification of the accounting systems of the Chinese Government Railways, he served with singleminded scientific devotion to the task before him, and succeeded in the formulation of a body of rules, which were adopted and are in force today, unifying the systems of accounts of the Chinese Government Railways. The significance of this work cannot be fully appreciated without a knowledge of the peculiar conditions besetting those railways. The fruits of his labor have laid a foundation for the future development of railways in China and their increasing value can only be revealed by the growing test of time. In honor of him and in recognition of his signal services, the Chinese government twice decorated him.

No estimation of his services can be final without making mention of the unique nature which characterized them and which flowed from the high purpose and noble character of the man. China has had many and varied advisers, who have served relatively longer periods. Their results, however, have not been so monumental, and in some cases have been not happy. Professor Adams, on the other hand, worked with and advised the Chinese members of the Commission on the Unification of Accounts, helped them in the production of a body of rules, and left the work entirely in the hands of the Chinese. Such disinterested service and achievement commands universal respect and the love of the Chinese people.

Though the problems of China were new to him, yet with his scientific grasp and weight he had a thorough comprehension of them. He was also not lacking in human sympathies. He had such an understanding of the Chinese mind and ways that he readily sympathized with them and found

working with them congenial and productive of good. His efforts and contacts so endeared him to those with whom he worked that they not only revered his knowledge but also loved him as a man. In view of China's financial and economic problems, had he been alive, the Chinese government would have occasion to seek his services again.

The relation between America and China has always been friendly, and the feeling between the two peoples has always been cordial and kind. Professor Adams will stand out in history as one who has strengthened those bonds which unite these two nations, who has induced the feeling of confidence between nations and set the example for international coöperation and advancements.

At the conclusion of his address Dr. Chang read in Chinese the inscription on the tablet, and then gave the following translation:

In the memory of Professor Henry Carter Adams, this monument is erected by his colleagues of the Ministry of Communications, Republic of China, this tenth month of the tenth year of the Republic, where, as adviser, his wisdom and kindly temperament, his knowledge of economics and railway statesmanship were effective in unifying the accounting systems of the Chinese Government Railways. We, strangers in the land, come in mourning to his grave. Our tears pay tribute to his honest and able help in our time of need. We commend his example to future generations.

The monument is typically Chinese. The pedestal in marble represents the traditional sacred tortoise of China bearing upon its back the tablet, on one side of which is the Chinese inscription and on the other the English translation. The two faces of the tablet are blackened, as in Chinese stones, where the practice of taking rubbings eventually produces the characteristic darkened surface. The old dragon emblem of the Empire, which formerly surmounted all stones of this type, has been omitted since the inauguration of the Republic.

A POPULAR THEORY OF CREDIT APPLIED TO CREDIT POLICY

A preceding paper¹ was devoted chiefly to a discussion of the question whether the rise in the rediscount rates of the federal reserve banks had been instrumental in bringing about the credit contraction which followed the post-war expansion. An attempt was made to show that rate changes *per se* had not been efficacious, and it was furthermore pointed out that many obstacles lay in the way of the development of an efficacious system of rate control by the federal reserve banks. Since the date of writing (June, 1921) much additional evidence has been afforded of the lack of connection between the rates charged by the federal reserve banks to member banks, and the rates charged by the latter to their customers. It was observed that during the period when reserve bank rates were being advanced, many member banks were unaffected by the rise, because their charges were already far above the rediscount rates. Subsequent reductions in rediscount rates likewise have had little or no influence upon the charges of many member banks located in sections of the country where 8, 10, or 12 per cent is a customary rate. In short, over considerable portions of the United States it is a fiction to suppose that interest rates are either competitively fixed or responsive to the influence of changing demands from borrowers. Recognizing this fact, the article to which reference has been made above stressed the limited efficacy of any policy of rate control, however vigorous, under the conditions now existing. But it was suggested that in the leading money market centers a more effective control over rates could be secured by the federal reserve banks through an extension of open market operations with a view to equalizing the rates charged by member banks on different classes of loans, as well as with intent to bring about an expansion or contraction in the total amount of credit accommodation available.

This type of discussion takes for granted, or at least ignores, general questions of a much more fundamental sort. It does not ask, for example, whether it is desirable, if possible, for rate control to be exercised by a central banking system as an instrument of credit control. Nor does it ask to what extent such rate control is a matter of volition on the part of the central bank management. It does not attempt to decide whether changes in central bank rates can be arbitrarily enforced or whether they merely register a policy of conformity to some external guide or guides variously designated as the real or true rate of interest, the market price for capital, the natural rate,

¹The Efficacy of Changes in the Discount Rates of the Federal Reserve Banks," AMERICAN ECONOMIC REVIEW, Sept., 1921.

etc. To put these questions is to show how necessary it is to make clear at the start the theoretical presuppositions upon which any discussion of discount policy is to be based. A theory of mechanical or automatic fixation of interest rates through the unhampered operation of the forces of demand for and supply of capital (variously defined) makes untenable any concept of an independently initiated discount policy as a beneficent means of credit control. The sole aim of credit policy in that case would consist in somehow determining the natural, competitively fixed rates and then making them a guide to conduct. As a matter of fact, however, underlying most discussions of discount and credit policy there is an assumption, tacit if not expressed, that banks (and central banks in particular) are formative institutions, not merely instruments for the automatic execution of certain processes of exchange over which they have no control.² It is not necessary to attribute omnipotence to a banking system in order to conceive of it as an active agent in the direction, stimulation, or repression of industrial processes. But if there is to be any recognition of a problem of credit policy, it is necessary to conceive of banks as something more than passive agents recording market decisions and merely responding mechanically to demands made upon them.

The limits of the control exercised by any banking system, assuming it to be centralized and unified to a high degree, can perhaps be illustrated by analogy with those encountered by a monopolist who has been able to engross a necessity of life. The monopolist by his ability to control the supply of a particular commodity has a control over price that enables him within limits to stimulate or to discourage consumption. He cannot, however, fix his price without reference to demand on pain of overreaching his aim either by selling too little at too high a price or a great deal at too low a price. Similarly, to say that a banking system, to the extent that it can manipulate the supply of credit available in the market, exercises a positive control over industry is not to say that it can ignore the fact that it works within an industrial environment in which needs, "ever-changing in direction and intensity, are the motivating forces which condition all industrial activity." Nevertheless, the banking system of a modern industrial com-

²*Cf.*, however, testimony of Governor Harding before the Joint Commission of Agricultural Inquiry. He says on p. 362, part 13 of the Hearings: "The banks have to go along with the tide. I do not believe that banks can create conditions to the extent that people seem to think they can; I think the banks have to adjust themselves to conditions." Yet on p. 363 he is willing "to admit that if it had been possible for the Federal Reserve Board to advance its rates before it did... in my opinion this runaway movement could possibly have been checked to a certain extent." Even with all the reservations that are inserted, the statements remain irreconcilable.

Cf. Hearings before the Joint Commission of Agricultural Inquiry, part 13, August 2-11, 1921.

munity so organized as to give power of direction into the hands of a central bank management is in a position to control the sale of a most important commodity: namely, credit. The prices charged for the use during a given period of time of the credit or purchasing power furnished by the banks (in other words the discount or interest rates) will depend upon the amount of accommodation the banking system is prepared to sell, that is, upon the supply of credit. This supply is, with the reservations just indicated, determined by policy in so far as law or custom does not interfere. And as additional supplies are often produced with only a negligible immediate cost, it is evident that the influence of policy upon supply is exceptionally direct and unhampered. But just as the monopolist has to experiment with prices to find out whether a given supply can be sold at a particular price, so a banking system desiring to sell the use of credit must experiment with discount rates. If, at the rate fixed, the demand of those willing to pay exceeds the amount of purchasing power that the banking system deems it politic to sell, either the rate must be raised still more or else refusal or restriction of loans must ensue. On the other hand, a reduction of rates with a view to stimulating the sales or rather the hire of purchasing power may fail of its purpose or meet with very feeble response. Hence, even under conditions in which control of rates is absolute, it by no means follows that control of the amounts of credit supplied (the fundamental objective) can always be secured. Only under conditions in which demand is sufficiently sensitive to enable the banking system to dispose of as much or as little credit as it desires by varying discount charges, is it possible to enforce a credit policy through the instrumentality of discount rates alone.

Implicit in all discussion of credit policies are theories as to the nature of capital, credit, and interest. To avoid confusion, these concepts need to be expressly defined and consistently adhered to, as the most serious obstacles to a lucid treatment of discount and credit policies have grown out of the tendency to use the terms in one sense for purposes of discussing money market phenomena and then to shift over to certain esoteric concepts for purposes of general economic theory. The position here taken is that the only definition of capital which has any validity *for the purposes of a discussion of discount and credit policy* is a definition which makes the terms capital and credit interchangeable and identifies them with the purchasing power sold or, more exactly, hired out by banks to borrowers who want credit for all sorts of purposes.³ Whether this purchasing power is taken in the

³The opening sentence of the second paragraph (p. 471) of the article in the *AMERICAN ECONOMIC REVIEW* referred to above seems, if taken alone, to be directly opposed to the position maintained in this paper. The subsequent discussion, however, makes it evident that the statement was directed against the vagueness of a

form of cash, bank notes, or checks against deposits is irrelevant from the point of view of the present discussion. Practically speaking, one can ignore any direct loans made by individuals in possession of hoarded money, and all other loans are made through utilization of the funds provided by the banking system. Even savings deposits whose disposition is subject to the control of individual investors can only be utilized in the form of purchasing power transferred to borrowers through the medium of banks. Interest has already been defined as the price paid for the use of the purchasing power furnished by banks to buyers or borrowers for a period of time.

The above definitions at least have the virtue of recognizing the fact that a study of money market phenomena has to proceed in terms of what is actually bought and sold on that market. This usage receives conventional support, too, from the growing disposition among economists to accept definitions of capital and interest based upon money market terminology as theoretically valid for a fundamental discussion of the problems of credit policy. There are, of course, countless illustrations of thoughtless acceptance of this terminology found in textbooks on money, banking and general economics, but the writers are not concerned with recognizing all the implications of their definitions and using them to test the validity of their views concerning discount policy and credit control. H. J. Davenport is conspicuous among American economists for unequivocal assertions of his belief in the theoretical soundness of definitions of capital and interest conceived entirely in terms of the money market. Unfortunately he has touched only incidentally and briefly upon the application of his definitions to questions of credit policy. In an article published in the *Annalist*, for February 28, 1916, entitled "Divergent Views of Interest," however, he leaves the reader in no doubt concerning his belief in the power of a banking system to function as an instrument of credit control. Having denied emphatically that there is any measurable connection between the amount of the "capital," "cash," "funds," which the business man borrows, and the productive equipment of a community (which Davenport calls the economist's capital), he goes on to say: "Equally clear is it that the available loan fund at any time is chiefly a matter of the disposition of the banks to do this discounting; and this disposition is determined mainly by the ease of their reserves and not at all, or only remotely and partially, by the amount particular type of approach to the subject. The concluding sentences of the paragraph, in which it is said that the borrower buys the services of the bank, and that the rate is the expression of a greater or less inclination on the part of the bank to sell its services, are in general conformity with the arguments set forth in this paper. But the earlier statement is itself open to a charge of vagueness due to the failure unequivocally to identify the services sold with *purchasing power*.

of machinery and raw material in the country." If concrete wealth is related to the case at all, he holds, it is merely as bearing upon the amount of accommodation that banks will grant to applicants. Interest rates, then, "report merely the condition of the loan market—not, even in the main, the volume of the existing supplies of loan funds, but rather the power and the disposition of the banks to create new funds. Credit has its cost of production as truly as wheat—costs varying under varying conditions of actual reserves and of estimated risks."

Another consistent spokesman for the theoretical soundness of the popular notion that capital, credit, and interest are money market phenomena is Schumpeter.⁴ In his *Theorie der wirtschaftlichen Entwicklung* he asserts that money market rates are the only interest rates; that the money market is the same thing as the capital market and that there is no other; that the capital market is the market in which purchasing power is bought and sold. Capital creation, he holds, is the creation or new creation of credit means of payment, and

⁴J. Schumpeter, *Theorie der wirtschaftlichen Entwicklung* (Leipzig, 1912). See especially the section entitled "Der Geldmarkt," and chapter 5, "Der Kapitalzins." Schumpeter's treatment offers many invaluable suggestions to a student of credit policy, even if one is willing to accept his highly unrealistic concepts of static and dynamic societies, and to think of interest as a sort of tax upon entrepreneurial profits growing out of new productive combinations—a dynamic phenomenon. Schumpeter's emphasis is all placed upon this entrepreneurial demand for purchasing power which arises because of the possibility of utilizing it in new ways. In a static society, or one in which producers owned all the goods that they required, there would be no interest, according to his characteristic use of that term. However, he concedes that even in his static society, premiums might be paid either by borrowers or by lenders in connection with particular transfers of purchasing power, according to whether the desire of the parties to the bargain happened to be stronger for present purchasing power or for the assurance of future purchasing power. Schumpeter admits that in point of fact the so-called static as well as dynamic demands for purchasing power influence the actual rate of interest in the money market but he regards the former as unimportant. It is obvious, however, that no realistic theory of interest can ignore or even minimize the influence of non-industrial demands. Especially at the present time it is evident that a working definition of capital or credit cannot conceive of it as purchasing power sold chiefly to entrepreneurs who are the determinant factors on the demand side in the fixation of interest rates. For an understanding of the problems of the money market, it is necessary to remember that funds are loaned to all sorts of customers irrespective of the uses to which the borrower expects to put them. Davenport has done good service in pointing out time and again that loans may be obtained for the purpose of bribing a city council as well as for paying wages, or buying machinery. It is evident from the brief outline given, that Schumpeter assigns to banks as the "producers of and dealers in purchasing power," the determinant rôle on the supply side in that money market in which interest rates are fixed. He says, p. 275: "We can see then in practice the working of both factors in the market; in the case of the most developed money markets, quite clearly; in other instances, less so. We can see how the industrial need for credit is expressed, and how the institution of banking sometimes supports and encourages it, sometimes tries to restrain it, sometimes refuses to give it further satisfaction."

interest is the price paid for this purchasing power as a means of control over production goods.

Gustav Cassel in his *Theoretische Sozialökonomie* (Leipzig, 1918) and in more recent articles intended for popular consumption has attracted world-wide attention to his proposals, which have made a forceful appeal because he has tried to apply a consciously held theory of capital and interest to a solution of the problems of discount policy and its corollary, credit control. He too takes the position that interest is a price paid to secure control over "capital" for a period of time (cf. pp. 167 and 174, *Theoretische Sozialökonomie*). And capital (*Kapital*) he has previously defined (p. 44) in terms of "money," as opposed to *Realkapital*, which consists of material goods still found in or concerned in the production process (p. 167) (*die sich noch im Produktionsprozess befinden*). Subjected to analysis, however, Cassel's definition of capital seems to be dissociated from reality quite as much as a definition which conceives of capital in terms of material goods already adapted to the purposes of production—a concept which he has subjected to destructive criticism.⁵ Cassel entertains the idea that there is somewhere a true rate of interest and that it should be the aim of banking policy to bring bank rates into conformity with this true "capital" rate. His assumption is that borrowed funds are devoted chiefly to purchasing durable production goods, and the true rate of interest seems to be that rate at which demand will take off the supply of savings in pecuniary form. But how can this true rate be determined? Cassel admits that it is immediately and powerfully influenced by bank rates of interest. He attempts, however, to show the deleterious social effects of keeping bank rates of interest below the true rate, and comes to the conclusion that if the banks only hit upon a rate or rates that leave prices unchanged that will be the true rate. It will be observed that this true rate can only be reached by definition since it has no existence in fact.⁶

⁵See especially pp. 213 and 214. One is puzzled to know just what rôle the banks play in Cassel's money market, especially as he says later (p. 378) that "the bulk of the funds available (*die Hauptmasse der Kapitaldisposition*) for taking over concrete capital (*Realkapital*) is furnished by savings capital. Only a small part of this need for capital funds (*Kapitaldisposition*) can be furnished by the banks by the giving out of bank currency." Now *Realkapital* as previously defined includes circulating as well as fixed capital, and even the most uncompromising opponents of the practice of lending bank-created funds as opposed to savings for the purpose of securing control over durable capital goods, would concede their utilization in the purchase of circulating capital. It is probable, however, from statements previously made (cf. pp. 213-14, cited above) that Cassel is thinking of demand for funds with which to buy durable capital goods as set off against supply in the form of pecuniary savings. The rate that will suffice to take off these savings is then the true rate to be aimed at.

⁶Cf. p. 380 especially. The effect upon prices of a failure to keep actual bank rates in line with true rates as here defined is explained as follows. The policy of

Notwithstanding the notable exceptions to which attention has been called, the majority of economists are certainly not yet inclined to make the money market the point of departure for an investigation of the nature of credit phenomena. But the majority of bankers and business men seldom employ any other terminology in their discussions of such problems. Indeed, to talk effectively in other terms would often be impossible. To be sure, the Federal Reserve Board and the reserve banks have rather consciously tried in their official pronouncements to place emphasis upon the things that credit will buy, to conceive of credit as but a reflex of the demand for productive goods and services—as dependent somehow upon the physical volume of goods and in no sense a creation resulting from policy. Nevertheless, Governor Strong testifying before the Joint Commission of Agricultural Inquiry stated quite positively his belief that “credit is a commodity just as any thing else that is bought and sold and commands a price which is fixed by the laws of supply and demand.” The statement is quoted because it is typical, representative it is believed, of the views of a majority of bankers and of the lay public, and in accord with the position which this paper tries to maintain. It may be added, however, that such statements are seldom supplemented by adequate analyses of the nature of the supply of and demand for credit.

In the discussion of discount and credit policy one gets nowhere by the use of definitions couched either in terms of goods and technological processes, or in terms of abstinence. Granted that demand for credit usually grows out of a conviction that the purchasing power desired can be used “productively” (*i. e.*, profitably), it may not be; and discount policy determines whether the attempt shall be made or not. The marginal demand may come from a man who thinks mistakenly that he can use a loan profitably. Below the margin may be overcautious potential borrowers who could have used funds with

the banks of placing out their funds at the old rate when profits are rising will, it is said, send up the prices of capital goods, thereby shunting purchasing power toward those goods to the detriment of consumption demands. The apportionment of the purchasing power of society between capital goods and consumption goods is in this case altered just as if a growing disposition to save had arisen in the community. So far as one can see, what is being said here is that the amount of purchasing power directed toward all purposes except immediate satisfaction should find its limit in the amount of the savings of the community. Certainly no counsel could be more vague or seem less related to reality. And to repeat, it is hard to see how the banks, theoretically speaking, can perform their characteristic functions at all without being regarded as intrusive, disturbing factors. Yet the conformity of bank rates of interest to an elusive true rate of interest is to constitute a method of stabilizing the price level. Cassel is naturally fully cognizant of the fact that the general price level is not determined exclusively by monetary factors, but nevertheless he is disposed, especially in his later popularized writings, to minimize the influence of incalculable factors on the demand side and to talk as if changes in the price of credit acting through supply could be counted upon to effect the most delicate and instantaneous adjustments.

profit. The demand for loans comes from the ill-informed, as well as the astute—it may be characterized by over-optimism or over-pessimism. On the other hand, no explanation of the supply of loanable funds can be related to individual rates of abstinence. Such funds may represent in part purchasing power withheld from the market by acts of individual self-denial. But the supply will also be augmented by created banking credits. Indeed, as the banking system is capable of supplying funds by creation of claims, it can take from some and give to others, thereby reducing immediate ability to consume of people who are not consciously saving. War loans are an obvious and extreme illustration of enforced saving, when financed by means of credit inflation.

Theories that base concepts of capital upon categories of goods, that conceive of savings as existing in the form of such goods, and think of interest as payments in goods, dependent either upon a somehow defined capital productivity or reflecting a universalized rate of time preference, fail therefore to make any convincing connection with the facts of the money market. It is obvious that one gets nowhere with productivity theories of interest, unless they are conceived in terms of price; and price changes bear no measurable relation to physical magnitudes. Neither have theories of interest based on time preference any value for purposes of the present inquiry, even if they have metaphysical content. No light is thrown on the causes of the fluctuations in call loan rates, for example, by saying, as does Fetter, that "the market-rate of interest (after due allowance for risk and other deductions) registers a prevailing price for timeliness, which pervades the whole economic structure of society." Nor does Fisher help to clarify the discussion or to relate it in any convincing fashion to the money market when he says: "The rates of preference of different individuals must be equal to each other and to the rate of interest in the market. . . . The rate of interest must be such as will equalize supply and demand, or exactly clear the market."

To be sure, the money market functions as part of a complex economic organization for the production, exchange, and distribution of goods and services. It cannot be conceived of as working in isolation; but on the supply side, the commodity which it offers for sale—namely, purchasing power—is subject to control through policy.⁹ Hence

⁹Cf. F. A. Fetter, *Economic Principles*, vol. I, p. 312.

¹⁰Cf. I. Fisher, *The Rate of Interest*, p. 150.

¹¹In an article by C. A. Phillips on "Control of Bank Credit," published in *The Annals of the American Academy of Political and Social Science*, January, 1922, an attempt is made to distinguish between actual and natural rates of interest by defining the former in terms of money and the latter in terms of goods. It is said (p. 198) that "too little effort has been made to bring the market rate into harmony with what may be called the *natural* rate of interest, the natural rate being the rate

prices charged, that is, interest rates, are influenced by policy, although many factors of a material and personal sort affect the demand for purchasing power coming from borrowers. Banks may as a matter of precaution, and usually do, test the desirability of transferring purchasing power to a borrower by determining whether he is in possession of goods awaiting transfer, transformation, or utilization. But it is, to repeat, a matter of policy whether an underlying basis of goods is insisted upon in granting a loan and whether conditions are made in connection with the loans, such as that the borrower must control salable goods or have expectation of receipts from goods already sold.

In the definitions of capital and of interest accepted for purposes of the present inquiry, there has been no attempt to distinguish between the uses to which borrowed funds are to be put, or to differentiate according to the length of time for which funds are wanted, because it is not thought that a definable distinction can be made."

at which the supply of and demand for loanable capital goods, as distinct from 'money,' may be equated." What meaning inheres in this distinction? What are loanable capital goods? There are at any instant of time certain available supplies of goods, some of which are in condition either to be turned over to consumers or to be used in furthering productive processes, while other goods may already be definitely adapted to specific needs, productive or otherwise. There are also stocks of raw materials that may serve a great variety of purposes. But even if one accepts a distinction between capital and non-capital goods, there is nowhere at any time a determinable supply of capital goods waiting to be taken off by demand, somehow defined in terms of goods. It may be asked whether demand for "loanable capital goods" can possibly be defined in any but monetary terms. And if demand is conceived of in terms of purchasing power, is it not an effective demand irrespective of the way in which it has been secured? The next sentence concedes the elusiveness of these natural rates for loanable capital goods by saying that "although it is impossible always accurately to ascertain what the natural rate of interest is, it is not difficult to detect a wide disparity between the market and natural rates." And since the "natural" rate, just as Cassel's "true" rate, escapes measurement, the writer shifts his ground and by implication redefines the natural rate as a rate which will prevent price changes. He says: "The disparity between the market and the natural rates during the early period of credit expansion under the operation of the Federal Reserve act, was due measurably to an inflationistic policy with a low rate of rediscount as its central feature."

"The attempts of the Federal Reserve Board in its rulings to distinguish between a commercial loan and an investment are ingenious, but not always convincing. Time cannot be made the test, because every loan made by a federal reserve bank is for a short period. The commodities bought or handled with the funds obtained cannot be the test. The tests are related to motives of borrowers and sometimes external tests whose logic it is hard to follow. For example, in an article on "Eligibility for Discount," by C. L. Powell, *The Annals*, Jan. 1922, p. 109, it is said: "A note, the proceeds of which is used for tilling or draining farms, may be classed as agricultural paper and is eligible for discount." But "silos are permanent improvements, and notes given for their purchase are not eligible for discount."

"A note given for the purchase of a motor truck by a farmer is clearly held to be eligible for discount, as agricultural paper, but notes or trade acceptances given

Yet a good many economists who are prepared to talk exclusively in terms of money and purchasing power when discussing short-time loans, and who are furthermore willing to concede that rates charged for short-time funds can be regulated by policy, shift their position when investigating the influences regulating long-time interest rates—the rates at which they conceive the values of durable goods to be capitalized.¹¹ It is believed, however, that the method of approach to the problem of long-time rates should be substantially the same. Problems of policy arise in this field also—indeed, such problems are but variants of the general problem of credit policy which should be viewed as a whole.¹² The so-called long-time rate has no existence apart from the money market any more than have short-time rates. It is a derived rate based on an average of day-to-day rates actually charged in various long-time contracts negotiated in the market. Such averages are the ones applied to the valuation of income bearers and it is not believed that rates of capitalization exist apart from the rates actually paid in the money market. At least, if they do, they are realities that are without tangible expression. The so-called long-time interest rates (and the distinction between long and short is of course arbitrary) have been made the subject of many unwarranted generalizations by contrast with short-time rates. Not only have long-time rates usually been accorded a metaphysical reality denied to short-time rates, but even when the discussion has proceeded in market terms they have been differently conceived, thought of as averages over a period of time, rather than as prices constantly changing. It may be conceded that fluctuations of rates in long-time contracts are as a rule less extreme than fluctuations of call loan rates but comparisons in the purchase of motor trucks of a corporation engaged in the business of furnishing motor transportation are not eligible for discount, as such trucks represent in a large extent the corporation's capital investment.”

¹¹Cf., for example, D. Friday, *Profits, Wages and Prices*, chapter on “The Rate of Interest.”

¹²In this connection it may be noted that it is hard to see how any question of credit policy can arise—apart, that is, from the necessity of maintaining legal reserves—if one holds that all genuine commercial loans are self-liquidating and that banks should confine their operations to loans of such type. The only question then becomes one of rigid scrutiny of the paper offered or investigation to determine whether proceeds are intended for current uses, in cases where the paper does not reveal the type of transaction. If paper is unimpeachable, or so appears, ought not loans and discounts to be made as a matter of course? What should be the policy of central banks under such circumstances? The belief sometimes expressed that the federal reserve banks, for instance, should accept all “good” paper offered to them, would, if made the basis of policy, deprive the system of every vestige of effective control. Policy has in fact led to refusal to grant loans, and the graduated discount rates imposed upon certain member banks in some sections were a timid substitute for downright refusal to grant more credit, irrespective of the type of paper being offered for discount. These graduated rates, reviled as an instrument of exploitation, were actually a concession to the clamor for more credit.

are seldom made in proper fashion. Long-time interest rates change perpetually as do call rates, and such changes are only known by the interest which the borrower of purchasing power agrees to pay at the time the contract is made. Not only will the long-time interest rate of today be something different tomorrow but its fluctuations depend upon and likewise influence other market rates. Any investment banker knows that the call loan rate will affect the terms on which long-term loans can be effected. And long-time financing operations contrariwise affect call rates. It is hardly necessary to call attention to the effects of policy in reducing the long-term rates at the time of the Liberty Loan flotations, yet there persists this disposition to believe that long-term (investment) rates are largely determined by forces conceived to be "natural" in the sense of being divorced from money market influences.

There is, however, another reason why investment activity is usually excluded from the field of credit policy, even by writers who think of all forms of credit in terms of purchasing power. There exists a widespread belief that a reliable measure of the amount of purchasing power that can be safely loaned for long periods of time is found in existing time or savings deposits of all sorts and that all that banks or financial institutions need to do is to act as intermediaries in transferring purchasing power from those who save to those who want to spend such purchasing power in a particular way.¹³ Usually it is felt that this purchasing power should be directed toward durable production goods. This attitude assumes a rigid segregation of savings deposits from other bank deposits which notoriously does not exist. But, after all, back of the question whether such a policy of segregation is possible, there lurks a more fundamental question as to whether it is always desirable to devote savings deposits exclusively to the purchase of those classes of goods whose utilization will expand industrial equipment and whether all "created" banking deposits shall be rigidly diverted from such cases. Now every analysis of the nature of investment demand on the technological side encounters complexities that elude solution. There are greater, socially speaking, more significant differences existing between various types of recognized investment demand than between certain types of investment demand and certain types of commercial demand for credit. Purchasing power that is directed toward the purchase of production goods in durable

¹³As a matter of fact it is very hard to say what proportion of time and savings deposits actually represent a long-time abstention from purchasing on the part of their owners. A considerable portion of such deposits is likely at any time to be heavily withdrawn and devoted to immediate purchasing of all sorts. The insistence that savings institutions shall become investors in short-time paper, such as acceptances, as a means of protection against unexpected withdrawals is evidence of the fact that such deposits are in part regarded by their owners as demand deposits.

form has a very different effect from purchasing power directed toward the raw materials out of which such goods are to be made, or directed toward control of the services of land and labor to be used in connection with productive activities. Loans obtained against mortgages on land, when used to buy more land, are in a very different category from loans against mortgages, whose proceeds are used to improve the land. Given the fact, therefore, that formal classification throws so little light on the social and economic results of lending operations, it may be concluded that a credit policy cannot be restricted to a formally defined field of borrowing, if it is to be really effective in the control and distribution of credit, and if it is to prevent price maladjustments resulting from undue borrowing by certain elements in the community. Suppose, for example, that a hard and fast rule of using all savings to purchase limited categories of production goods were practicable and enforceable. It might lead to overstimulation of the buying demand for such goods at the expense of the markets for raw materials and finished goods. On the other hand, the amount of savings might be so limited as to restrict unduly the demand for production goods. In either case, the results would be disastrous not only to investment but to commercial banking interests whose "liquid" loans are only liquid to the extent that fixed capital functions, "circulating" capital circulates, and both productive consumers and ultimate consumers buy as expected.

Before the war, German writers on finance perpetually complained that in Germany long-time loans carried unduly high interest rates as compared with short-time loans. What was the explanation? Purchasing power created by the banks and used in the market for short-term loans had been sufficiently plentiful to meet demands on the basis of low rates. But in the market for long-term investments, the supply of purchasing power offered for sale had been more or less limited by reference to the amounts of savings deposits, so far as they could be estimated. At any rate, the relatively extreme divergence of rates indicated a hindrance of some sort to the competitive shifts that would otherwise have tended to reduce the unusual spread existing between long and short-term rates. As a matter of fact, this situation was tending to correct itself by a growing policy among the banks of extending short-time accommodation to favored borrowers who wanted it for long-time purposes. This tendency was an inevitable outgrowth of a maladjustment which it served to correct. Hence it is curious to find Herr Heiligenstadt, president of the Preussenkasse, deploring the tendency and at the same time calling attention to the unfortunate social and economic effects of an undue spread between long and short-

time rates." In an article on "Der deutsche Geldmarkt," (pp. 76-77), he says: "In any given condition of industry, there must exist a definite relation between fixed and circulating capital.....Against every violation of this economically necessary relationship between fixed and circulating capital the money market will eventually react with the greatest force..... The weakening of the national circulating capital is the root of our economic embarrassment." That is, the writer thinks the tendency has been to put too much of the national circulating capital which ought to be maintained in liquid form into fixed investments. But, to repeat, since the saving disposition of a people is not particularly amenable to policy, an evening-up process either involves encouraging the practice complained of, or else limiting as a matter of policy, the supply of purchasing power offered for short periods of time. J. Plenge, in a book on discount policy published in 1913, at least touches upon the possibility of modifying the spending and saving habits of a people to make possible a more rapid creation of "capital" and thereby bring about an equalization of long and short-time interest rates."

It must be admitted that even in countries having highly centralized commercial banking systems, the control of the direction of savings funds is not so immediately subject to the decision of bankers as are short-time funds, because individuals have a greater direct voice in dictating the disposition to be made of their savings. But after all, their choices are determined by the opportunities for investment offered by investment bankers and financing agencies dependent in their turn upon loans furnished by the commercial banking system. Consequently individual savings are in good part forced into predetermined channels. There are innumerable points of inevitable contact more-over between long-time and short-time lending operations. Attention may be called to some of the best-known types. Surpluses of corporations, intended eventually to be used in permanent investment expansion, find temporary utilization in purchases of bills or other short-

¹⁴Cf. C. Heiligenstadt, "Der deutsche Geldmarkt," *Schmoller's Jahrbuch*, March, 1907; also, *Fragen des Geldmarktes* (Berlin, 1906).

¹⁵J. Plenge, *Von der Diskontpolitik zur Herrschaft über den Geldmarkt*. (Berlin, 1913), p. 222. "Precisely as involuntary and unplanned is the equalization of the capital market in each of its chief reservoirs. No care is taken that this year, the perhaps growing capital needs of state and municipality or the demands of industry facing new technological tasks, shall be satisfied by increased savings. No effort is made in decades of increasing capital demand to see that the consumptive habits of the people make it possible to bring about a more rapid creation of capital. On the other hand, just as little attempt is made in a period of very rapid increase in the supply of credit capital, to see that the need for circulating capital in trade and industry correspondingly increases, with the inevitable result that the introduction of this new capital which is at the same time new money, would bring about inflation in its true sphere of effecting the actual transfer of goods, which however, it does not do when it flows off partially into investment channels."

time securities. Securities may be bought with savings or their purchases may be financed through the proceeds of call loans. Funds transferred to a borrower who expects to use them for long-time purchases, may be temporarily reloaned in the short-term market. And there is also the familiar procedure of borrowing for short periods of time with every intention of eventually funding the short-term obligations into long-term loans.²⁸

Despite recognition of the prevalence of this practice of perpetually shifting purchasing power between long and short-time investments, there is a widely held belief that inflation is sure to result unless investment operations can be limited to or be measured by the savings of individuals. That leads one to a consideration of how inflation is brought about and whether it necessarily results from an extension of commercial banking operations into the investment field. Sometimes it is said that the latter type of loan is inflationistic because it is a claim on wealth in general instead of being a claim upon specific goods passing through various production stages. The answer to this is that credit of every sort is a claim on wealth in general in the sense that it is purchasing power which can be used to buy things, no matter what the nature of the transaction to which it is ostensibly tied or what the type of property upon the security of which the bankers have been willing to transfer the use of purchasing power either for longer or shorter periods of time. Long and short-term credit is in essence the same. It is easy to think of a long-time loan as a succession of short-time loans, renewed at intervals. And such loans can in individual cases generally be "liquidated" at any instant by transfer of the property bought with the proceeds of loans even if it is in fixed capital form. Of course, such liquidation cannot go beyond customary proportions. On the other hand, short-term loans are often long-term loans, technically payable at intervals. And in any case, even when the proceeds of loans have been used to buy so-called circulating capital goods as, for example, raw materials which are to be worked up and transferred by sale, or commodities which are merely to be shifted unchanged from one distributive stage to another, it does not follow that liquidation can be forced any more than it can be in the investment field. The conclusion is that credit of one sort is not of necessity any more inflationistic than credit of any other sort. Inflation follows when the expansion of credit (purchasing power) *in toto*, no matter how used, proceeds at a rate so rapid that the effective pecuniary demand directed toward all sorts of goods, durable and transient, and toward all kinds of services is more than sufficient to take off supplies of these things at current prices. It is undeniably

²⁸Cf. J. Plenge, *Von der Diskontpolitik zur Herrschaft über den Geldmarkt*, pp. 219-226.

true that the disposition to extend credit to persons prepared to pledge property which they have no desire or intention of selling has an inflationistic tendency so long as new forms of such property are being brought into the credit system and used to serve as a basis upon which to request loans.¹⁷ The difficulty with such loans is that considerations of individual safety rather than questions of general policy are likely to determine whether they shall be granted or not. The amount of such applications should of course be controlled, irrespective of the excellence of the underlying security. And the purposes to which the proceeds are to be devoted should be scrutinized, as in the case of other types of loans.

Another sort of theoretical objection to the attempt to apply a credit policy to the market for long-time loans has, curiously enough, been raised by H. G. Moulton, the economist who has done so much to show the intimate dependence of investment operations upon the commercial banking system as it is commonly conceived of. He believes that a discount policy intended to control inflation by raising rates will have the effect of raising the rents of goods of a durable sort such as buildings, for example. He argues that a scarcity of such goods will follow because of increased expenses of production growing out of the higher interest rates that have to be paid for borrowed funds.¹⁸ This flies in the face of the facts of valuation as applied to durable goods in a period of rising interest rates and appears to be theoretically invalid for the following reasons. First, the interest on borrowed purchasing power is not an invariable element in cost of production and cannot be directly determinant of price. Changes in interest rates exert an importance according to the more or less of borrowed purchas-

¹⁷*Cf.* J. A. Hobson, *Gold, Prices and Wages* (p. 91): "Only when the bulk of the industrial world is so far standardized in its business structure that the greater part of those forms of wealth capable of supporting credit have been brought into the credit system, is there any sure prospect of a reduction in the pace of growth of credit acting on world prices."

¹⁸*Cf.* H. G. Moulton, "Banking Policy and the Price Situation," *Papers and Proceedings of the Thirty-second Annual Meeting of the American Economic Association*, p. 170: "While an increase in the rates of rediscount would curtail the volume of outstanding loans, it should not be overlooked that it will accomplish other things as well. For instance, it will increase the costs of conducting business all along the line. This increase in costs must be reflected either in increased prices or in decreased profit margins. It is necessary that we clearly perceive that one result of the increase in rediscount rates will therefore be to curtail the possibilities of business expansion during the coming year. There is a tremendous need for the construction of additional houses, additional railroads, additional public utilities, and additional industrial equipment in order to permit us to recover from the effects of the curtailment of construction operations during the war. To raise the rates of discount at the present time will increase the cost of such construction at a moment when such building operations are already being seriously retarded in consequence of the enormously high cost of construction."

Cf. Criticism of this contention, *ibid.*, p. 181, by G. W. Dowrie.

ing power employed. The effect upon price is indirect. Higher interest rates *per se* tend to make for lower values of building materials, to the extent that the higher prices charged for the use of purchasing power restrict demands for such materials. The uses of completed buildings may remain dear under such circumstances because of scarcity of the use-bearers but the higher rates will not hinder but rather help to overcome this scarcity by reducing the costs of new buildings. Hence a discount policy which aims to control price inflation in the case of goods intended for a rapid turnover ought to be applicable to goods which are to be embodied in more permanent forms.

The general conclusions that have been reached are merely preliminary to a consideration of the special problems of policy that confront the federal reserve system. Since the grant of credit is inevitably and in the nature of the case a matter of policy, it should be conscious and unified, and for that reason there should be a wide power of direction and control lodged in the hands of the management of any central banking system. To be fully effective, furthermore, this control must embrace the market for investment loans as well as for short-time loans. If this responsibility is recognized and accepted, the existing mechanism must be adapted to this end. Hampering customary or legal restrictions must be abrogated or else the central bank authorities must disavow the responsibility that the public uncritically insists upon placing on them. If the contention previously advanced is a correct one, namely, that it should be the aim of policy to maintain a balance between investment and short-time lending operations, the federal reserve banks ought to have some means of influencing the apportionment of credit supplies between these uses. In that case if the interest rates for long and for short periods showed a marked spread, it would be a signal for interference. To illustrate: suppose the reserve banks were permitted both to rediscount and to lend directly against stock and bond collateral. The reserve institutions would then be in a position to make their influence felt in the general investment market, since they could at discretion raise or lower rates charged for carrying loans of this type, in relation to other classes of loans. The problem of credit control, is after all, not simply a matter of increasing or decreasing the credit supply *in toto* but of seeing that it is apportioned adequately among the various groups of borrowers. Unduly high or unduly low rates charged for particular types of loans may bring about much worse maladjustments than either too great liberality or too great niggardliness of an impartial sort. It is recognized of course that at present the control of the federal reserve system is not only imperfect in relation to the existing membership but also incomplete, as a result of the existence

of large numbers of non-member banks that have but remote connections with the system. It should not be forgotten, however, that the distinction between members and non-members is not based upon differences between banks doing a primarily commercial business on the one hand, and investment institutions on the other. Many banks doing an extensive commercial business are excluded, while large trust companies whose investment activities are of preponderant importance have been taken, indeed urged, into the system."

Color has been given to the belief that credit policy can only be effective in the market for short-time loans by the fact that in the case of European central banks, discount policies have been consciously tested out in central money markets, and the literature on the subject has been confined chiefly to a description of the methods employed in controlling a very limited class of operations carried on by the large banks and credit middlemen in immediate contact with the central banks. The bill market in large financial centers (and New York City is no exception) offers an extreme case of sensitive response to central bank rate changes. But that is no reason why attempts to influence outside market dealings should be confined to that limited field. In New York City, for example, dealers in acceptances, as distinct from accepting banks, operate almost exclusively with borrowed funds. Their profits consist in acting as intermediaries in shifting loans from one lender to another (*i. e.*, from the accepting bank that grants credit by accepting to another bank that is willing to purchase the acceptance). If the dealer who buys the bills as a means of effecting these transfers has to pay as high a rate on the funds borrowed for that purpose as he subsequently pays in reconverting his loan into purchasing power, he makes no profits. And it is very easy to suffer losses in such transactions. Hence dealers are in a position where every change in rates on call money, with which they usually operate, is a matter of grave importance, and the scope of their operations is immediately influenced by such changes. When, as in the New York market, dealers are often dependent upon loans obtained directly from the federal reserve bank, the open market rates of the latter directly determine the extent of such dealings." It is admittedly a far cry from this type of control to the sort of control that is concerned with the amount of credit to be granted to manufacturers for expanding industrial equipment or to farmers and stockmen for growing crops or raising live stock. The problem of how to establish such control is a very different one and a difficult one, but that is not saying that it ought not to be done. The question is—how best to do it.

"Note also provisions of Edge act (1919).

"Sales made under 15-day repurchase agreements are thinly disguised loans.

It might as well be admitted that such an all-embracing type of credit policy seems highly improbable of attainment under existing conditions, given the fact that the federal reserve banks have had such limited powers of control even within the restricted field assigned to them by law. But unless a goal, no matter how remote it may seem, is consciously set, there are no consistent standards by which to judge the expediency or significance of proposed modifications of law and policy that will have to be considered from time to time. Some of the immediate obstacles in the way of control over member bank rate charges have already been alluded to. Proposals designed to overcome this lack of responsiveness should fit into a general scheme of policy, instead of being opportunistic devices to meet the needs of the moment. The evidence goes to prove a very general lack of relationship between rediscount rates and the rates paid by the public to member banks. In some instances, member banks are in the position of minor monopolists who charge what the traffic will bear; and there are sections of the country in which it will bear 10, 12 or 14 per cent. In parts of the country where it is not feasible to put the rediscount rates of the federal reserve banks above rates charged by member banks, there should be a steady drive against such rates in the form of a refusal to rediscount for banks making excessive charges, or else in the shape of direct loans to overcharged borrowers, because a rediscounting agency such as the federal reserve system cannot have any effective control over credit policy, even in a period of credit expansion, so long as it has no influence over the rates charged to the general public. When the member banks have surplus reserves, it is quite obvious that a pure rediscounting agency loses all control over the amount of credit supplied to the public and over the rates at which it is furnished. The conclusion is that a rediscounting agency as such can never control a credit situation through rate changes, when it sells its credit at rates below the rates charged to the public. Under such circumstances, its only method of control in a period of expanding business, is rationing. In a period of declining business its rôle is passive. In order to enforce its policies, therefore, the federal reserve system must extend the scope of its direct dealings with the public (*i. e.*, its open market operations). It was suggested in a previous paper that the bill market was not the only one to which the resources of the system could be safely and effectively applied. It was contended that commercial paper and loans against salable securities might very well be added to the category of paper obtained directly, not with a view simply to employing the resources of the system but with intent to put it in a position more effectively to influence member bank activities and to bring about equitable rate adjustments when the market mechanism was not working adequately and it was felt

that particular groups of borrowers were either undersupplied or oversupplied with funds. It is not without significance in this connection to note that the Federal Reserve Board in its annual report for 1921 emphasizes its lack of direct dealings with the public in refuting critics who have imputed to it responsibility for deflation and business depression.²¹ This lack of direct contact with the borrowing public must be recognized as a very real limitation upon the responsibility of the board either for credit expansion or for contraction. But this very fact is an argument for the extension of direct dealings and for that reason strong objection can be made to a recent statement of the Advisory Council (January, 1922) to the effect that "the federal reserve system. . . . must not be permitted to deal with customers direct and thereby incur the risk of immobilizing its funds in credits that may conceivably become frozen. Whatever relief the federal reserve banks may furnish must, therefore, be granted through the intermediary and under the responsibility of banking channels."

As a matter of fact, the question whether the direct lending activities of the federal reserve system ought to be extended has been more or less debated in connection with a discussion of agricultural credits. The bill now pending in Congress which seeks to meet the demand for an intermediate type of agricultural loans does not, however, provide for any direct grant of loans by the reserve banks. On the contrary, it would remove them one step farther away from the borrowing public so far as this particular type of agricultural lending is concerned. The bill provides for the establishment of credits departments in the federal land banks whose function it will be to furnish farmers and live-stock men with loans running from 6 months to 3 years. Paper taken by these credits departments from banks, incorporated live-stock companies, and coöperative associations of agricultural producers is made eligible for rediscount with the federal reserve banks when it is within six months of maturity. The reserve banks may also buy debentures issued by the federal land banks still having six months to run. Although these provisions of the bill are permissive, not mandatory, there is no arrangement made for subordinating the activities of the new organizations in a way to make them conform to the general policies of the federal reserve system. It would indeed be entirely possible for the two groups of institutions to work in opposition to each other.

The Agricultural Conference which held sessions in Washington in January gave its support to more radical recommendations which would permit the federal reserve banks to make direct loans to agriculturists without intervention of intermediaries and to buy short-time

²¹*Cf. Eighth Annual Report of the Federal Reserve Board*, pp. 90-99.

debentures without the restrictive six-months provision. But these recommendations are no more—even less—acceptable than the ones just discussed, because they are definitely discriminatory. The proposal to make such direct loans is not part of a general policy of expanding open market operations. It has the character of a special favor, granted to particular classes of producers and, as such, would be liable to lead to abuse of privileges and misdirection of credit grants. In this plan also there is no hint of a desire to subordinate the federal land bank system to the federal reserve system with a view to developing a harmonious policy.

Prussian experience in attempting to provide credits on a suitable and reasonable basis to agriculturists and also to small business interests offers many valuable suggestions for the solution of the American problem of agricultural credits. The Prussian agriculturist was provided with a subsidized centralized government agency, the *Preussenkasse*, as a means of access to the credit facilities of the banks in the leading money centers for the financing of his short-time credit needs. This government lending agency was not only in possession of funds provided by the government, but it was able to dispose of paper of the various coöperative unions subsidiary to it and in that way obtain funds at reasonable rates for the use of its membership. It furthermore at times rediscounted with or obtained loans from the *Reichsbank* when the outside market was not favorable. There was a good deal of complaint to the effect that the bills rediscounted by it with the *Reichsbank* were purely in the nature of accommodation bills and represented fairly long-term loans. The *Reichsbank*, however, was not ruined by its practice of taking such paper; neither did the credit structure of the country collapse. But there was undeniably friction due to the fact that the president of the *Preussenkasse* was entirely independent of the *Reichsbank* management, and that his operations were at times calculated to interfere with the *Reichsbank* policy. There was also complaint at times from the industrialists that the agriculturists could, as a result of governmental policy as made effective through the *Preussenkasse*, get loans at stable and low rates even when the big industrialists and speculators were paying high.²²

The lesson of German experience appears to be that it is possible to make adequate and cheap provision for agricultural loans but that responsibility for the provision of such credits ought not to be given over to an institution that is independent of the central bank management. In the United States the establishment of a special central organization to care for agricultural needs would be even more pro-

²²Cf. W. Prion, *Das deutsche Wechseldiskontgeschäft* (Leipzig, 1907), sections relating to *Preussenkasse*.

vocative of trouble than in Germany for many reasons. The Preussensenkasse, for example, did business with unions composed of coöperative groups organized for the purpose of obtaining loans that they were not able to secure directly. They were not reached by the large powerful banks and the countryside was not provided with small independent banks of the type found throughout the United States. There was more reason for building up a separate organization under such circumstances than there would be in this country where the organization of farmers into coöperative credit associations is a slow and difficult task, rendered all the harder by the fact that banks in the United States actually provide much of the relatively long-time and very long-time credits needed by the farmer.²³ Any central agricultural lending agency that may be established under government auspices in the United States will therefore have to do its principal business with the banks that rediscount with the federal reserve banks. Its operations in any case ought to be conducted within the limits set by a general policy and this becomes especially necessary when it has the same class of customers as have the central banks.

An emergency institution, such as the War Finance Corporation, for example, has had to conduct its operations chiefly by lending to banks instead of by making direct loans, and the lack of a definite agreement with the federal reserve banks has led to certain inevitable abuses. Complaint has been made with some evidence to support it, that banks have borrowed from the Corporation in order to pay their debts to the reserve banks, and have shown no disposition to become any more generous in their dealings with the public. Some of them have undoubtedly unloaded slow loans upon the Corporation which they could have continued to carry. In certain cases, the law designed to give the borrower the benefit of lower rates by providing that loans obtained through the agency of banks shall be negotiated at an advance not exceeding 2 per cent, has also been evaded through the addition of extra commissions. Control of credit by a method of indirection through intermediary lending agencies is difficult at best. It becomes well-nigh impossible if such intermediaries are permitted to obtain funds from two independent institutions that may be working to neutralize each other's activities. For administrative purposes only, a formal segregation from the federal reserve system of the agencies designed to bring about a more equitable distribution of agricultural credit may be deemed desirable. But it is very undesirable, if it involves independent policies in making loans, whether those

²³*Cf. Letter of Secretary of Treasury Transmitting Fifth Annual Report of the Federal Farm Loan Board.* On p. 6 complaint is made that numerous farm loan associations have pursued a selfish policy. The original members having satisfied their own needs become virtually a closed corporation or else cease to function.

loans are long-time mortgage loans or relatively short-time credits. In the case of mortgage loans, flotations of new issues need to be carefully planned at convenient seasons and to be put out in amounts and under conditions pleasing to the central bank authorities. In making provision for the intermediate type of loans, problems relating to seasonal needs have also to be faced. Unless an agricultural lending agency is to keep possession of unused resources during a part of the year, it must be in a position to rediscount or to obtain loans directly from other banks in the money centers. Hence the provision that the proposed credits departments of the federal land banks shall be permitted to rediscount paper with the reserve banks. It is believed that this privilege should be accorded, subject to rigid control by the rediscounting agencies. In other words, the proposal is endorsed in so far as it is virtually a seasonal expansion of operations on the part of the central banks themselves through the medium of subordinate and only formally segregated agencies.

Reference has already been made to problems of credit control in relation to loans against stock and bond collateral. Through direct dealings in and rediscount of loans collateraled by securities, the reserve banks could make their influence felt most effectively in the general investment field. They would be enabled at discretion to curb or to encourage a diversion of purchasing power in that direction by raising or lowering the rates charged for carrying investment securities in relation to other types of loans. It is sometimes hard to see the reason for the prejudice against such loans. It appears again and again even in the comments of those who concede the advantages growing out of the existence of organized security markets which are dependent upon such loans. But, it is asserted, undue accommodation of this sort leads to excessive speculation. Admitting that undue speculation in securities, as well as undueness in all things, is evil, it is highly illogical to concede the advantages offered by the organized security markets to investors as well as speculators and then to treat the loans which make such activities possible as shameful things—to feel that apologies must be made for granting them. The truth is that an efficacious credit policy can be easily developed in this field. The effect of a policy of withdrawing or adding to credit supplies is startlingly apparent in its effect upon call rates, and volume of stock exchange turnover. Under ordinary conditions it is fairly safe to assume that stable and reasonable rates will keep speculative demands within limits although, in a boom period, control may have to be enforced by resort to more drastic methods. If speculation is socially useful, a proper policy should see that funds are supplied on reasonable terms in reasonable amounts. If the nature of the demand is such that the banks can and do take advantage at times of the speculator,

it is to the detriment not only of the latter but of the rest of the community. The federal reserve banks should take as much interest in proper provision of funds to meet this demand as any other. They could aid in making that provision when necessary through open market operations, if legally permitted to do so.

The discussion of credit policy has so far dealt with rate variations chiefly in relation to control of the total amounts of credit supplied. It may now be asked whether it should be the policy of the federal reserve system to attempt to maintain a low level of rediscount rates, and whether it ought to aim at uniformity and stability of such rates. So far as long-time movements are concerned, the question resolves itself into a discussion of the best means of credit control. The reserve banks may at times have to restrain expansion by rationing, for example, but if they eventually are put in a position to influence market rates, they may normally be able to influence credit movements by varying their rediscount rates. In such case, upward and downward rate movements are to be expected. As regards seasonal or sectional rate variations, however, the problem is a distinctly different one. To the extent that seasonal demands for credit are regular and can be anticipated, the ends sought to be achieved by the establishment of a central banking system with an "elastic" currency are defeated, if the seasonally increased demands are accompanied by rate increases. Additional credit supplies to meet regularly recurrent needs ought not to involve additional expense to borrowers.

It is believed, too, that uniformity of rediscount rates as between districts should be aimed at by the federal reserve system, although it is recognized that the present imperfect control over member banks in high-interest districts may make it desirable to postpone the consummation of any such ideal. However, this is not a very strong argument, for in such districts the supply of credit which the reserve banks are prepared to furnish is the significant factor, and it is well known that rediscount rates have often been lower in districts where member bank rates on the average were very high than in sections of the country where interest rates were relatively low. Indeed it has never been possible to find a logical explanation for the differences in the rates actually enforced in the several districts, and it is notorious that relatively high rediscount rates in some districts induce member banks to borrow through their correspondents in other districts.

The relation of changes in discount rates to changes in the general level of prices is another question that has to be considered in any discussion of banking policy, especially as stabilization of the price level has been so frequently urged by Cassel and other writers as the objective of a right discount policy. It is, however, impossible to see

how any direct connection between the rates of the reserve banks and the general level of prices can be postulated, so long as member bank rates fail to register changes in rediscount rates. But even if member bank rates were responsive, it is not believed that there would ever be that instantaneous, predicable response to rate changes which appears to be taken for granted by those who urge that price indexes shall be employed as a guide to discount policies. In the first place, an endeavor has already been made to show that the amount of credit wanted does not always adjust itself readily to changes in the price charged for its use. In other words, demand is very imperfectly amenable to control through changes in discount rates. With apathy on the part of borrowers, low rates may not stimulate sales of credit, whereas, when demand is feverish, it may require drastic advances to bring about the desired reduction. Furthermore, without altering the general price level so far as indexes reveal it, credit may be turned into new channels, so that new price relationships will be established which will react upon the demand for credit.

It is not intended to deny that in a period of over-rapid development of business and speculative activity, the rediscount rates of the reserve banks might be raised high enough to place an effective check upon further credit expansion. But it has been pointed out that in many parts of the United States, the interest rates charged by member banks to their customers are at all times maintained at high levels. Therefore, in order to put a stop to the rediscounting activities of such banks in a period of growing business demand, the rates charged by the reserve banks would have to be in excess of what would be economically expedient (leaving out of consideration the obstacles that would be raised by public hostility to the policy). When member bank charges are too excessive to make it practicable to put rediscount charges on a level with them or above them, the alternative method of controlling the amount of credit supplied is by rationing or refusal to lend. When the rediscounting facilities of the reserve banks are not in demand, the central banking system will not in any case be enabled to enforce a credit policy by changes in rediscount rates. Under such circumstances, it can only exert an influence upon the outside market, if permitted to engage in direct lending operations as previously indicated.

At best, changes in discount rates are but a means employed to control the amount of credit supplied. The vital question is to decide how much credit shall be furnished. It may be asked whether formal reserve requirements are a good test for this purpose. Certainly such requirements are, theoretically speaking, irrelevant from the standpoint of those economists who conceive of credit as a refined form of barter which, if used in the process of exchanging goods, can

never become excessive. If one looks simply to goods, which means goods values, loans can be continually enlarged with excellent conscience by bankers, during periods of prosperity. No canons of sound banking need be violated and the banker cannot be blamed for resultant price rises. In the past, rigid reserve requirements have at least limited this upward movement and that is why they have a certain value despite their arbitrariness.

At the present time, the credit supply of the United States is, for all practical purposes, unlimited so far as reserve requirements are concerned. These requirements do not restrict the activity of member banks since reserves can be expanded so long as the federal reserve banks consent to rediscount. Moreover, fear that cash payments may be demanded in excess of ability to pay (ordinarily a constraining factor even if there are no legal reserve regulations) no longer exists, since rediscounts can be obtained in the form of reserve note issues. The law does place a limit to the expansion of the liabilities of the federal reserve banks themselves on the basis of reserves held, but the limitation is not absolute although it might under circumstances be useful as a protection against political importunity. At present the reserves of the system are so abundant, however, that they are a menace rather than a protection to a conservative credit policy.

The relation of discount policy to the control of gold movements is also of no practical importance at this time, although in the past European discount policy has been chiefly devoted to attempts to control international gold movements. Perhaps that is the reason why a study of central bank practice in other countries has thrown so little light on problems of domestic credit policy. If the views already set forth are accepted, it must be conceded that control of gold movements comes to be a subordinate affair. If or when the gold standard is reestablished in international dealings, the best policy for the federal reserve banks to pursue would be to ignore minor gold movements in the belief that the system has enough surplus gold to withstand temporary drains. If heavy withdrawals of a persistent sort occur, the question of discount policy becomes a different and more formidable one. A movement of this sort resulting from domestic inflation which has stimulated imports and discouraged exports calls for higher rates in the interest of credit contraction, but such higher rates should be imposed not because of the gold movement but because the gold movement is an index of the need for credit restriction within the country.

If the manipulation of discount rates with a view to stabilizing the general price level appears to be an unworkable formula, if reserve requirements have lost any significance they may have possessed, and if gold movements have become of subordinate importance, is there any

guide to credit policy that can be adopted? There is certainly no rule or set of rules that can be applied mechanically because the problem is too complex and too tremendous. What is needed first of all is a fuller knowledge and better analysis of the physical facts of industry, and until that is achieved, there is no device known to credit policy that will greatly mitigate the evils due to the periodical ups and downs characteristic of a credit economy. How can a complex industrial society almost entirely dependent upon the use of credit be intelligently guided or controlled when the basic facts concerning current production and current needs are so imperfectly known? A beginning has been made with the systematic collection of production statistics and the organization of business reporting services on a disinterested, scientific basis. But the information made available can hardly have offered much help to bankers as a guide to credit policy because so far reporting services have either been confined to statistics of production without adequate analysis of markets or else they have had a fatalistic aspect, predicting what is going to happen on the basis of past experience (for that is all that is achieved by plotting lines of secular trend). So far as this latter type of reporting service is concerned, it may be conceded that it is interesting to forecast on the basis of a careful assembling and analysis of facts about what stage has been reached in the cycle of prosperity or depression through which business is passing. But a business reporting service to be of use to the public, to industry, and to the banks must offer something more than solace to the inquiring mind. Business statistics are not particularly valuable merely as an aid to guessing where we are in the business cycle or as a means of enabling the astute either to take chances successfully or to get out from under. If business conditions reports are to be used as a guide to credit policy they will have to disseminate information with a view to mitigating the violence of industrial ups and downs by preventing productive maladjustments due to ignorance of market conditions.

Reporting services that emphasize only the productive facts of industry are equally unable to meet this need. During a period of business expansion, a wonderful showing may be made in volume as well as in value of output. It was made during the recent months of prosperity. Business conditions reports dealing in production and sales figures radiated enthusiasm. Scarcity and the need for increasing output were everywhere emphasized. Complaints of the inadequacy of permanent equipment and admonitions to save to provide that equipment were the stock in trade of the business moralist. The trouble with all these sales and production figures was that, although real enough and seemingly substantial even allowing for inflated values, they were an index to expectations—they had still to stand the test

of effective final demand. Such statistics need to be judged in the light of an elaborate study of markets." It is necessary to know not only how much has been produced but whether there is likelihood of the demand being great enough to take off the supply at a profitable price. Likewise in case of a sudden failure of demand, it is necessary to face the vexing question of how far it is legitimate to withhold surplus supplies from market for the sake of higher prices later. The solution of this problem requires a knowledge that goes beyond production statistics. Suppose, for example, that the supply of a certain commodity is "normal" but some ill chance renders a good part of the usual demand ineffective. Confusion of counsel results. One group of advisers says sales must be forced and debts paid—to delay is to speculate for a price rise. Another group urges holding with a view to obtaining eventually the prices originally hoped for, irrespective of the nature of the causes that have destroyed the market demand. The dangers of yielding to either type of extreme counsel are perfectly obvious. In the one case, forced sales on an already falling market bring crushing and undeserved losses to certain groups of producers. In the other case, holding, if successful, may mean a policy of restriction of supply at the expense of the whole community with the result of turning over a greater part of the social income to a particular group. If the withholding is carried to an unreasonable extent

"It is interesting to note the insistence of members of the Agricultural Conference (Washington, January, 1922) upon the need for full and frequent statistics relating not only to agricultural production but also giving information as to the stabilization of the markets for products. This points to a general recognition of the fact that no plan to stabilize prices of particular commodities can hope to succeed simply by enlarging, changing, or liberalizing the existing credit system. So long as the supply of agricultural commodities is in excess of demand at remunerative prices, it is recognized that any attempt at stabilization is capable of only limited application at best. So long as producers are ignorant of the markets open to them and unable to estimate the scope of the consumptive demand, sharp advances and declines in prices are certain to occur. It is admittedly difficult to adjust production to demand in the case of agricultural products which are so greatly affected by circumstances over which the producer has no control, but there has come to be a very general recognition of the fact that more adequate statistics would at least give a greater measure of control over output and prices. Therefore the Conference expressed its conviction that there was need for a knowledge of foreign as well as domestic buying demand and endorsed participation in a conference looking toward the economic and financial reconstruction of Europe. The recommendations of the Committee on Agriculture and Price Relations stated among other things that, "owing to the large volume of American agricultural products which must necessarily be sold upon foreign markets, it is impossible to formulate a satisfactory policy for American agriculture without a complete knowledge of the course and direction of recovery of agricultural production abroad." It recommended therefore that the Department of Agriculture proceed to make periodically available information with respect to production and demand. The Conference also approved thirty-seven recommendations of the Committee on Crop and Market Statistics requesting the compilation and distribution of returns on production, stocks, condition, prices, and other factors entering into the marketing of crops and live stock.

it not only penalizes all consumers of such products but may defeat its own ends by merely deferring the day of reckoning. Such problems are much more complicated in a period of general but unequal price declines than they are when limited to particular commodities. In the latter case there are usually standards of fairness and reasonableness whose maintenance can be urged. In the former case the only standards are those of relativity. If therefore any reasonable guide to action is to be found, there must be a painstaking study of all the factors involved. Not only must supply on hand and in prospect be appraised, but demands must be forecast. An effort must be made to find out whether reduction in buying demand is of a temporary or of a permanent sort—whether it is limited by physical needs or responsive to price changes. Only then can a policy of price equalization by means of credit extension be intelligently undertaken with a view to spreading price losses over the community as a whole. Mistakes cannot be avoided as only omniscience could prevent their being made, but at least the policy adopted will not be haphazard.

The untenable results reached by insistence upon the desirability of physical increase in production without reference to the relation of production to effective demand is strikingly illustrated in the answer of the Federal Reserve Board to the Senate resolution of May, 1920, asking what steps were being taken to control inflation. In its answer the Board stated: "Every effort should be made to stimulate necessary production, especially of food products, and to avoid waste. Planting operations in many sections have been delayed because of adverse weather conditions, and should there be an inadequate yield of crops this year the necessity for conservation and conservatism will be accentuated. War waste and war financing result inevitably in diminished supplies of goods and increased volume of credits. The normal relationship between the volume of goods and the volume of money and credits thus unsettled can be restored in either of two ways—one, the drastic method of contraction of credit, and the other, by far the more desirable way, increased production. In the same way progress toward the restoration of the normal relationship may be made by reducing credit more rapidly than production is diminished, or by increasing production at a greater rate than credit is expanded. If it should prove impracticable in the existing circumstances to increase essential production, then we must through economy in consumption and through moderation in the use of credit check the tendency toward a further widening of the margin between goods and credit."² When

²Elsewhere in this same statement it is made to appear that trade and industry must after all "accommodate themselves to the actual supply of capital and credit available." Capital in this connection probably means savings deposits, as the preceding sentence says: "There is a world-wide lack of capital, and with calls upon

this statement was made, the problem of disposing of surplus stocks of commodities at prevailing prices was already becoming acute. The hope here expressed that large crops will be raised is in sharp contrast with the rejoicings over the short cotton crop of the past year.

But quite apart from the question whether it is desirable to produce more, the statement contains a fallacy in that it appears to indicate that production can as a matter of volition be increased or decreased while the volume of bank credit remains stationary or else expands or contracts at quite different rates. So far as bank policy is concerned, however, the effect on production of increasing credit supplies can only be felt through price changes in particular goods due to the diversion to their purchase of more credit or purchasing power. By raising the prices of such goods in relation to other goods, banks stimulate the production of specific kinds of commodities. But only to the extent that these shifts of purchasing power bring about a better adjustment of productive factors, is any influence exerted on the sum total of produced output. That is why accelerated activity in lending usually reflects itself in price increases. Only as factors over which policy has little or no control increase or decrease the volume of physical output, is this tendency to price increase counteracted or enhanced. Among such factors may be mentioned good weather or bad, making for large or small crops; industrious application or negligence, making for more or less output per worker; rate of growth in population; pace of invention, etc. Consequently it is useless to urge increased production as an alternative to credit contraction as a means of correcting the ravages of inflation. If inflation is to be stopped, it has to be at some cost. It is always accompanied by undue stimulation of some types of productive activity and when policy calls a halt, sharp drops in prices of such commodities will occur, which will have as a corollary the demoralization of the markets for other goods and services. The policy of extending credit to the holders of surplus stocks may for a time enable their owners, so to speak, to escape loss by purchasing their own goods. But eventually the fact of maladjustment will have to be faced. It will have to be recognized that there is no outside market to absorb goods at prevailing prices. If through policy it were possible to enlarge supplies of goods at such a time on the theory that the possession of goods constitutes an effective demand for goods, the confusion would be worse confounded. Prevention through knowledge—not succor following disaster—is the goal of a successful credit policy.

the investment market which cannot be met there is an unprecedented demand for bank credits." This suggestion that capital and credit are fixed quantities is surely in contradiction to the admonition to manipulate the amounts outstanding in order to introduce new relationships between goods and credit.

An effective credit policy in the nature of the case implies a measure of monopolistic control. Hence there is need for delegating that power of control to a disinterested central banking management, whose policy is unhampered by considerations of profit. The provision of credit in economically advanced countries has come to be as public—possibly more public in its nature—as the issue of money by governments. Hence there is no escaping the demand that a credit system shall be managed in the interest of all the people, that credit supplies shall be available on equitable terms to all sections and to all economic groups. A central banking system which tries to limit its operations to particular types of credit advances is only functioning imperfectly. The credit policy of the future must recognize responsibility for seeing that a balance is maintained among all types of demand for credit.

In conclusion, the chief points covered may be summarized as follows: (1) An attempt is made to define capital and interest in a workable and consistent manner with a view to making the definitions valid for the purposes of a discussion of discount and credit policy. (2) The position is taken that banks are creative institutions that do not function automatically in a ready-made economic milieu, although their activities are necessarily conditioned by environment. (3) Reasons are given to support the belief that a credit policy to be efficacious must embrace all types of credit operations, both long-time and short-time (investment and commercial). (4) Limits to the efficacy of changes in discount rates are discussed, both in general and more particularly in the case of the federal reserve banks; and it is maintained that the influence of rate changes as a means of credit control has been exaggerated. (5) The defects of various proposed guides to credit policy are reviewed and the need for fuller information in regard to the facts of industry is stressed.

ANNA YOUNGMAN.

THE COMMERCIAL IMPORTANCE OF RUSSIA

Russia is as prominent on the map of discussions as in the atlas. The import of breakdown of industry and transportation in Russia has been underestimated; the meaning of famine has been overstressed in the economic sense, though hardly possible of exaggeration in the human sense. The problem of Russia is not merely an internal situation involving a catastrophic experiment in communism; it is a problem in international commerce. It is my purpose to undertake an appraisal of the utility of Russian commerce to the nations with which she traded and to determine in what ways and to what extent a functioning Russia is important to her western neighbors and to oversea countries.

It will be advantageous to state in the beginning the conclusion to which a consideration of the pre-war affairs of Russia leads, namely, that Russian commodities are of greater importance to the world as expressions of buying power than for their physical and chemical qualities. The commodities that before the war originated in Russia can be found elsewhere in the world, but the trade relations are not reproduced when this is accomplished. It is natural to exaggerate the physical importance of commodities. Economic processes are not visible in the same way. It is difficult to secure a panoramic view of world trade in which the utilities of commodities in barter are revealed in perspective. We exaggerate the physical importance of commodities that used to be obtained from Russia and underestimate the exchange processes of which the commodities were the material aspects.

Let the facts be first established. Consider Europe before the war, including the United Kingdom, as separate from Russia and engaged in trade with Russia on the one hand and oversea countries on the other. It is difficult to make exact comparisons between pre-war and present conditions, because of the secession of Finland, the East Baltic States, Congress Poland and Bessarabia, but the evaluations may be carried through without substantial error. Although Europe, thus defined, contained states that were food exporters, most of the countries were food importers. Of pre-war European countries, Austria-Hungary, Bulgaria, Roumania, and Serbia produced more food than was consumed within their borders and exported more than they imported. The other nations of Europe produced less than their requirements and imported more than they exported. Considered as a unit, Europe was a huge importer of food, feeds and raw materials. These imports came from Russia or from oversea countries (disregarding Algeria and the other adjacent Mediterranean areas). The importations of Europe from the two sources, Russia and overseas, were delicately balanced.

The datum line of price was Liverpool; the final place of cancellation of bills of exchange was London.

Europe did not pay for imports of commodities with exports of commodities. Imports exceeded exports. The excess of imports over exports of goods was rising before the war; the standard of living was being expanded more rapidly than production. The annual difference between imports and exports of goods was paid for with returns on foreign investments, services rendered in shipping, insurance and other directions, remittances of emigrants and expenditures of tourists. Net new savings in Europe were falling before the war, and had possibly declined to a figure below that of income from foreign investments. In so far as the balance of imports over exports of goods may have been paid for by returns on foreign investments, this meant that the standard of living of Europe was in excess of current earnings and was being maintained out of the savings of previous generations.

Many factors of income and outgo coöperated to produce the position of equilibrium that characterized the trade of each year. What each nation imported was the expression partly of the goods it had to export in payment, partly of physical need, partly of the intensity of the psychological factors of valuation, and partly of the requirements of plant and tool expansion to correspond to increase in population. What Russia and the oversea exporting countries had to offer Europe was less the expression of their productive capacity than of the consumptive capacity of Europe. The consumptive capacity of Europe, the buying power of European commodities and invisible resources, were the determining factors in production in Russia and in the oversea countries, in so far as related to trade with Europe, and not with each other and with other portions of the world. The trade with Europe was however the largest fraction of international trade.

Russia and the oversea exporting countries had many characteristics in common. Like South Africa, Australia, Argentina, Canada, and to some extent the western United States, Russia was in the extractive state of development. She exported raw materials largely and, with the exception of cotton, imported principally manufactured goods. She required each year increments of foreign capital, to be paid for out of excess of exports over imports of commodities. The most intensive area of industrialism in pre-war Russia, Congress Poland, is no longer contained within Russia. In the next years Russia will be an extractive country to a greater extent than before the war. She will compete with Canada, Argentina, and Australia for capital on the basis of efficiency of production of agricultural and other raw materials, if undisturbed by political conditions.

I have said that the output of Russia and the oversea countries supplying materials to Europe were not expressions or measures of

their productive capacities, but responses to the consumptive capacity of Europe. The limitations lay with the buyers. These countries could have produced far more materials had a larger European market been available. When any one country supplying Europe with goods underwent an eclipse, for any reason, it lay within the power of the other exporting countries promptly to replace the deficit.

The following tables present figures for the average imports and exports of Russia in the five years before the war. No claim of exactness is made for these estimates. It is impossible in the trade statistics of the different countries of Europe clearly to separate transit trade from importation for consumption. The trade of Russia with the oversea countries is not fully expressed in the figures, for the reason that oversea commodities were obtained by her through European countries. Students of international trade statistics are fully aware of the difficulties encountered in estimating the balance of trade in commodities. If one takes the figures of a particular country for values of goods imported and exported, a certain figure in balance is obtained. If, however, one traces the imports back to the countries of origin and the exports forward to the countries of destination and obtains in these countries the figures for the values, he secures a different result. Governmental statisticians seem agreed that the figures of a country for import are more reliable than the figures for export in terms of value; and that in general a fairer balance of trade is obtained by using for imports the figures of the country and for exports the values placed upon them by the countries of destination. That these considerations cannot be neglected is shown in the attempt to fix a figure for the balance of trade of Russia. Accepting Russian data on imports and exports, we secure the following figures for average imports and exports of commodities in the five years before the war.

RUSSO-EUROPEAN TRADE

(in million dollars)

Exports from Russia	670
Imports into Russia	421
	<hr/>
Positive balance of trade	249

If we accept the figures of countries of origin for imports into Russia and of countries of destination for exports from Russia, we obtain the following figures:

Exports from Russia	988
Imports into Russia	311
	<hr/>
Positive balance of trade	677

If now, adopting the experience of governmental statisticians, we accept the Russian data for imports and for exports the data of countries of destination, we secure the following figures:

Exports from Russia	988
Imports into Russia	421
	<hr/>
Positive balance of trade	567

The figure for value of exports is too high. The German figures for imports from Russia are f. o. b. point of departure in Russia, while British figures for imports from Russia are c. i. f. port of destination in the United Kingdom. In the figure of 988 million dollars is included therefore an indeterminate figure for services in freight and insurance due Great Britain and other countries also.

Considering now the oversea trade of Russia (including Japan and China but not a number of little states that comprehend less than five per cent of the trade) we secure the following picture. Taking the Russian data for imports and exports we arrive at the following:

RUSSIAN OVERSEA TRADE
(in million dollars)

Imports into Russia	97
Exports from Russia	24
	<hr/>
Negative balance of trade	73

If we employ the data of countries of origin and of destination, we secure the following figures:

Imports into Russia	70
Exports from Russia	34
	<hr/>
Negative balance of trade	36

Employing now the Russian data for imports, and for exports the data of the importing countries of destination, we secure the following figures:

Imports into Russia	97
Exports from Russia	34
	<hr/>
Negative balance of trade	63

Combining the figures for positive balance of trade with Europe, 567 million dollars, with that for negative balance of oversea trade, 63 million dollars, we secure a figure expressing the final balance of Russian foreign trade, 504 million dollars. The debacle in Russia has compelled Europe to attempt to transfer this trade with Russia to oversea countries.

This figure looks high. It may be a hundred million too high. Russia had few invisible resources. Russian emigrants dispatched

small remittances. Tourists spent little money there. To other countries she rendered few services of the nature of shipping and insurance. Russians had few investments abroad. For practical purposes, therefore, we may disregard her invisible resources and thus her commodity exports represent her total exports. In each year, however, Russia borrowed abroad more money for improvement of transportation, development of industries, military purposes, and to pay interest charges. Russia was the site of many foreign investments. She had been the recipient of large foreign loans, governmental and private. She used considerable foreign shipping and insurance. Russian resources were employed abroad to an extensive but indeterminate extent in developing foreign political policies. Russian profligates wasted considerable sums in riotous living abroad. A large but indeterminate part of the visible balance of trade was used to pay for armament, military equipment of all kinds. Military supplies in large part were not included in the imports of Russia. These were purchased abroad on secret contracts, at grossly extravagant rates, often including a heavy graft. The balance of exports over imports of commodities was employed principally to pay fixed charges on foreign capital (interest and amortization) loaned to or invested in Russia.

The figures for Russian commerce, like those for Russian production, are unsatisfactory. Any estimate of the total balance of trade is to be regarded as approximate and inconclusive. It is regrettable that a more clear-cut presentation is not possible; but in the nature of the data available, a more scientific statement is not warranted.

The foreign trade of Russia before the war was nearly four per cent of total international trade in terms of value. Russia ranked sixth in the order of exporters, ninth in the order of importers, and seventh in the order of monetary value of total foreign trade. Germany had the largest commerce with Russia. She supplied one third of Russian imports and took one fourth of Russian exports. The United States ranked third as exporter to Russia, but imported little from Russia.

The products of a large country like Russia are naturally diversified. Most of her activities Russia shared with other countries. In one product (platinum) she possessed a monopoly; in another (flax), a position of preëminence. An appraisal of the material utility of Russian products must rest upon a survey of the products of other countries. We have first to measure the commodities freely produced elsewhere in the world as well as in Russia; and finally to consider the particular commodities in whose production Russia occupied a predominating position and determine to what extent new sources of supply elsewhere in the world have been uncovered and to what degree the articles have been replaced by substitution.

The chief items of export were products of the soil. Of the total exports, cereals represented more than half in value. The following table indicates the average exports in the five years before the war.

Barley	167	million bushels
Wheat	161	" "
Oats	63	" "
Rye	29	" "
Corn	26	" "
Potatoes	7	" "
Flaxseed, sunflower seed and other oil-seeds..	600,000	tons

The figures for cereals are more certain than for oil-seeds. The exportation of oil-seeds and derivatives was an important fraction of Russian trade. In values and calories the oil-seeds exceeded oats, rye, or maize and indeed almost equaled the three, being surpassed only by barley and wheat. The chief buyers of Russian grains and oil-seeds were Germany, the United Kingdom, the Netherlands and France, in the order named. The table serves to illustrate the large contributions made by Russian agriculture to man and beast in Europe.

War and communism have erased for the time being the surplus-export productivity of Russia and her export functions have been taken over by other countries. I am well aware that statements as to replacement of Russian grain and oil-seeds by grains and oil-seeds grown elsewhere in the world stand in contradiction to numerous gloomy forebodings with respect to limitation of world agriculture. It is however established in fact and clear in theory that the world has by no means reached the limits of available acres. There is still a reserve in world agriculture that is responsive to demand on the basis of price. A comparison of the total acreage under cultivation in the United States, Canada, Argentina, Australia, and India during the pre-war period, during the war and since the war will illustrate the capacity for expansion that has become actual in response to demand. The danger of Europe lies, first, in the fact that the elimination of one large surplus-producing country, like Russia, increases the hazard of crop failure elsewhere in the world; and, secondly, in the fact that the continued operation of increased acreage overseas from year to year must be maintained by such growers' prices as are regarded as remunerative. Australia, Argentina, Canada, and the United States are able to take over and regularly contribute the two hundred million bushels of bread-grains that Russia used annually to send to Europe. Naturally, the farmers would like to know how long the enlarged demands are prospectively to be continued, in order to plan acreage. This enlarged operation would represent no burden to the agriculture of these countries, if prices were remunerative and unusual crop failures did not intervene. During the years 1907-1914, we exported a

net average of 3,130,000 long tons of bread grains and flour; during the years 1915-1921 the average net export was 6,425,000 long tons. Before the war the average annual export of Russia was about 5,000,000 tons. Thus the United States alone has taken over two-thirds of the task of replacing the Russian bread-grains.

The same situation applies to feed-grains and oil-seeds. No one can offer Europe the barley she secured from Russia; but since this was feed-barley, it could be replaced by other feed-grains. The United States and Argentina have corn and oats enough to replace the barley, oats and corn exports of Russia. Europe has not taken them. To replace the oil-seeds of Russia, the tropics offer cocoanut, peanut, cotton seed and soya bean in quantities that are relatively unlimited.

So far as grains and oil-seeds are concerned, therefore, the agriculture of oversea countries has completely replaced the exportable surplus of Russia. Whether this continues in 1922 and farther, depends on crop hazards and prices. If we have a crop failure in the North American wheat belt this year, if the exportable surpluses of Australia and Argentina are much lower than forecasted, if wheat farmers in the four principal exporting countries find the price unremunerative and reduce acreages, then it may develop in the winter of 1922-1923, or later, that the export wheat supplies of the world do not equal the requirements of Europe. Barring an unusual coincidence of crop failure in northern and southern hemispheres, the danger of wheat shortage from limitation of acreage through price considerations exceeds danger of shortage through hazard. On account of conditions in the growing of oil-seeds, a shortage through hazard or reduction of operations is not to be feared.

One of the principal exports of Russia was flax, of which in good crop years before the war upwards of a quarter million tons were exported. Russian flax was for the largest part coarse and not of superior commercial grade. Outside of Russia it was used to a lessening extent in wearing apparel and in the home, linens of finer grade produced in other countries being preferred. It was, however, important for many technical uses. Russian flax was worked into goods largely in factories in the United Kingdom, and these have been hard hit by lack of the raw material. The lapse of Russian flax has not been made good by replacement with flax from elsewhere in the world. In Argentina, Canada and in our country flax is cultivated for the seed, and these countries have not attempted to replace the Russian fibre. At the high price of linen, substitution has been actively undertaken. Efforts to imitate linen by processing of cotton have been so successful in Germany that technical tests are required to distinguish the two fibres. Coarse grades of flax have been replaced by hemp, manila and jute. Long-fibre cotton is able to replace linen in many

uses. Finer grades of linen have been replaced by mercerized cotton and silk. In part, the deficiency remains and the world is making the best of it. It would be stretching the word essential to denominate Russian flax as essential to the industry of the world today; desirable it would be at a price, but not essential. What has been said of flax holds for the less valuable hemp.

Butter, eggs, and poultry occupied an unusually prominent position among Russian exports. The value of the export of these products exceeded considerably that of petroleum. Russia exported considerable timber, though much of it came from Finland. Unquestionably in the distant future the forest resources of Russia will prove of particular importance to Europe, but they are dispensable in the immediate future. Russia was an exporter of sugar, but there is no shortage of sugar. Furs, bristles, wool, caviar and tobacco were particular exports. The world has dispensed with these or replaced them.

Three particular exports remain to be considered. Russian petroleum has enjoyed a prominence in world trade out of proportion to the quantity involved. The Russian oil fields were approaching exhaustion with current methods of mining. Crude oil may become scarce in a decade; but existing stocks and the plane of production elsewhere indicate that for the immediate future the output of Russia is not essential.

Russia was once an important source of manganese ore. During the war development of manganese was greatly enlarged and the mines of Brazil and India are more than competent to cover the requirements of the steel industry of the world. It is questionable whether Russian manganese at the production costs of ten years ago could compete with Brazilian manganese in the market of today.

The Ural Mountains contain invaluable deposits of precious metals. The output of gold had fallen before the war to a small figure compared to the output of the world. But it is important to Russia as a basis for her circulating medium. Before the war Russia supplied nine tenths of the platinum of the world, the output being from twelve to fifteen thousand pounds. During the last three years of the war, platinum deposits were uncovered and developed elsewhere in the world. The pre-war platinum production of Russia would probably now constitute three fourths of the platinum production of the world at comparable price. During the war the world was combed for platinum and at the close of hostilities relatively large amounts were in the hands of the allied governments. The price was controlled during the war; the present price of platinum is something more than double the pre-war figure. With respect to the uses of platinum in the arts, sciences and industries, it may be said that the art use of platinum is being expanded, particularly in jewelry, while the technical use is

receding. By this I mean that year after year cheaper alloys are devised, capable of replacing platinum for particular uses. There are places where platinum is scarcely replaceable, as on the Wheatstone bridge. The best magneto breaker points are platinum. It is widely used as electrode and catalyzer. Its use as a chemical reagent is restricted. In some manufacturing processes it is irreplaceable; in other uses, a question of price. The disappearance of Russian platinum has not made platinum expensive in the world, contrasted with the index number of wholesale prices in general, on account of stocks accumulated during the war. The present consumption of platinum is, however, greatly in excess of production, and at some time in the near future the price of platinum will rise. At a certain price, substitution will occur to such an extent as to check further advance. Important as platinum is, it is not critically essential to the world in the sense that if the Russian mines are not reopened this year or next, the world will face a catastrophe in the arts, sciences and industries.

The chief pre-war import into Russia was cotton, raw and manufactured. More than half the cotton came from the United States. The second large item was metal goods—hardware, tools, wire, nails, corrugated iron, agricultural implements, and machinery of all sorts. The leading source of supply was Germany. A third important import was tea from China and India, controlled by the British trade.

The exports of Russia having lapsed, her imports must lapse unless paid for with gold or concessions, or secured through credits. Despite appreciable imports within recent months that were paid for with gold, Russian imports have remained on a level utterly insufficient to her needs. Empty trains have come to the ports of the Baltic to carry in the meagre volume of imports. The reported exportation of goods, exclusive of gold, from Russia in 1921 amounted to a little over eight million dollars.

When one surveys the importations of the several countries of Europe during the past three years, one observes that the materials previously imported from Russia have been secured from overseas. The volume of wheat and rye imported into Europe last year approximated the normal, but the countries of origin were different. Importations of feed-grains and oil-seeds have however remained much below the pre-war volume. As a result, the average output of milk and meat per unit animal in Europe is much below the pre-war figures. Europe marshals her imports in a certain order. The buying power of wheat in Europe has been very high and this has favored importation of wheat. Preference for wheat over feed-grains corresponds to priority of bread over meat, though lack of feed-grain and scarcity of mill-feed, due to high extraction in milling, have resulted in reduction of dairy products, whose scarcity is severely felt.

Since Europe is securing *from overseas* the same volume of bread-grains that she used to secure *from overseas and Russia*, what difference is it to Europe whence the source of these supplies? If Russia were producing feed-stuffs and oil-cakes available for export, would Europe be able to buy them from Russia in larger volume than she is now importing them from oversea countries that have them in abundance? Europe would prefer to buy from Russia 200 million bushels of bread-grains and from overseas 350 million bushels rather than to purchase from overseas the entire 550 million bushels. Europe would be able also to purchase from Russia feeding-stuffs that she is unable to purchase from overseas. Her power of paying Russia with commodities is a different thing from her power of paying oversea countries with additional commodities. Russia was the natural market for the manufactures of central and western Europe. The people of Russia are in serious need of goods previously obtained from Europe, whose manufacturing plants possess the tools necessary to produce goods in accordance with customary Russian specifications. Oversea countries are not in serious need of more commodities from Europe. Germany could exchange metal goods for sunflower seed from Russia much more easily than she can exchange metal goods for cotton seed from the United States. Nor is it readily possible to effect these exchanges through substitution of triangular or quadrangular trades. It is today not possible for Germany to buy cotton seed from the United States, send textiles to Russia, and have Russia pay the United States for the cotton seed with flax and platinum. The trade of the world is still disorganized, and triangular and quadrangular transactions that used to be effected at a central point of exchange are not yet working normally. Australia, Canada, Argentina, and the United States have the wheat, rye and feeding-stuffs required by Europe and could furnish them all, instead of joining with Russia in the supply of the needs of Europe, as was the case before the war. The needs of the oversea countries for the goods that Europe is equipped to offer are limited. The needs of Russia for the goods that Europe is equipped to offer are very great.

The differences between Europe's power of paying Russia and her power of paying oversea countries are qualitative and quantitative. In the qualitative sense, Russia has certain requirements in goods that could be supplied by Europeans, for the manufacture of which they are tooled up and to which their processes are adapted. Additional commodities that might be acceptable to the United States, Canada, Australia, and Argentina would be different. Europe is not in position to cater to new needs of these countries as she would be able to cater to the old needs of Russia. In the quantitative sense, the centralization of the trade of Europe becomes excessive. From oversea

countries Europe must buy copper, nickel, zinc, petroleum, tin, wool, rubber, silk and cotton, to mention only important goods, and two thirds of her import cereal needs. To add to this bill of imports a huge additional sum to cover all her import cereal needs, exceeds the capacity of Europe to focus her commerce. If the oversea countries are to bear the total burden of supplying grain to Europe, they must develop a consumptive capacity for available European commodities with which these may be paid. Such consumptive capacity exists naturally in depleted Russia, whose plane of consumption is low. But suddenly to add further increments to the consumptive capacities of the United States, Canada, Argentina, and Australia, where the standards of living are already high, is difficult and not to be achieved in a day. Unless these nations can use the goods which Europe is equipped to offer in return for grain or dispose of them elsewhere in the world, they would be saturated with customary European commodities for the time being. The more the sources of supply for Europe are centralized, the more focussed becomes the export trade. What Europe requires is diversification of trade, not centralization, because diversification means a wider export market.

The fundamental relationship can be illustrated specifically with two commodities, tea and cotton. If Russia buys no tea from India and China, these countries buy less of British cottons. Spindles stand idle, men are unemployed, the imports of cotton from Egypt and the United States are reduced, British shipping, insurance and banking decline, and cotton dams back in producing countries. The illustrations with cotton can be carried farther. The farmers of Argentina by planting the easily available acres are able to increase their exportation of wheat, let us say, 60 million bushels, one third of what Russia used to furnish Europe. Can these farmers, or indeed the entire people of Argentina, at once develop a consumptive capacity corresponding to the increment of wheat production? Does Argentina, when replacing Russia to this extent, increase her consumption of cotton to the extent of one third of the usual Russian import of cotton? Certainly not. Before the war cereals formed one half of Russia's exports, and cotton one sixth of her imports. The countries that have replaced Russia in furnishing cereals to Europe have not increased their use of cotton to the extent represented in the volume previously taken by Russia. If the peasants of Russia, not producing a normal crop and existing on a plane of living subnormal even for them, were this year to produce an increment of 100 million bushels of wheat for export, they would display immediately a corresponding consumptive capacity in cotton. When Russia exported 160 million bushels of wheat, she expected to be paid in commodities. When Canada, Argentina, Australia, and the United States expand 160 million

bushels, they expect to be paid in gold. The proposition remains fundamental, whether applied to a whole country or to an individual. The consumptive capacity that corresponds to the wheat required by Europe annually will be difficult to maintain in the United States, Canada, Argentina, and Australia on top of the customary conditions of living. If the situation were to be permanent, Europe might develop new goods to meet new needs; but consumption of traditional European goods is not easily expanded. The corresponding consumptive capacity (the market) stands waiting in Russia.

Surveyed either from the comparative standpoint of total values or by articles, it is clear that what the world misses today is not Russian production but Russian consumption. The Russian wheat is more valuable as money than as bread-grain. The importance of Russia to the world lies primarily in her consumptive capacity and secondarily in the commodities that have lapsed. The world has replaced the commodities themselves with relatively little difficulty; the consumptive capacity is replaced with great difficulty. In particular, the cultivation of additional consumptive capacity in the world is difficult when passing down-grade on a business cycle. The effect of raising more grain in countries that are already heavy exporters does not extend widely outside the industrial life of those countries. But the withdrawal from the trade of the world of the buying power represented by 200 million bushels of wheat and rye in Russia, not to mention the feeding-stuffs, extends through a network of ramifications that enter every civilized country.

Russia, previously contributing 160 million bushels of wheat to Europe, cannot import a reciprocal volume of goods because she has no wheat as payment. The countries that have raised an additional 160 million bushels of wheat find it hard to market the grain because their consumptive capacities in imports have not been expanded in proportion. Because Russia has not 500 million dollars' worth of exportable grain and oil-seeds, she cannot purchase goods to that value from producers and manufacturers the world over. Russia has been easily replaced as a producer; she is to a material extent irreplaceable as a consumer.

The countries of western Europe (ex-allied, ex-enemies and neutrals alike) seem united in the view that the desired economic restoration of Russia predicates the recovery of Russian production of foods, feeds and industrial raw materials, but does not include the revival of Russian manufactures. The desire of Europe contractually to restrict Russia to production of raw materials is in agreement with the thesis of this presentation, whatever may be thought of the policy from the standpoint of political morality. We may expect to see capital advances denied Russia for purposes of industrial rehabilitation

and extended to her—in some directions in return for concessions—for restoration of agriculture, forestry and mining. The time element is of especial importance. If Russia is to recover soon, that will indicate one kind of policy for Europe and the oversea exporting countries. If recovery is to be long delayed, that will involve a different policy for both. Immediate returns cannot be counted upon, even if reconstruction of Russia were at once got under way through coöperation of European capital with the present Russian government. For reasons that have been illuminatingly and judiciously stated in the article by E. Dana Durand in the February number of the *Quarterly Journal of Economics*, material surpluses for export will not be easily attained during the next few years, either in Russia or in Eastern Europe.

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THE CIRCUIT FLOW OF MONEY

The daily expenditures by consumers for new consumers' goods, upon which business stability largely depends, are determined in part by the total volume of money in circulation, in part by other factors including the frequency with which that money is returned to consumers. The flow of money, therefore, from use in consumption to another use in consumption should not be overlooked in studies of the causes and conditions of business fluctuations. It is the purpose of this paper to describe certain aspects of this circuit flow of money, to raise the question whether it does not deserve more attention that it has yet received in our analyses of business cycles, and to suggest pertinent lines of investigation. Unfortunately, the statistics upon which the most important conclusions concerning this subject must be based are not at hand and are not likely to be for a long time to come. The following discussion will have served its purpose if it stimulates further inquiry in profitable directions and helps to hasten the day when the necessary statistics are available.

There are streams of goods and streams of money which, in a literal sense, are constantly, though not steadily, moving in opposite directions. By "money" we mean throughout this discussion all forms of currency and also bank deposits subject to check; by "goods" we mean new commodities. For the most part, raw materials are grown, extracted and graded, moved on to factories and prepared for final consumers, moved on to wholesalers, thence distributed to retailers and finally turned over to consumers. At the same time, streams of money are moving in the opposite direction—a main stream becoming smaller and smaller as it flows from consumers to retailers, from retailers to wholesalers, from wholesalers to manufacturers, from manufacturers to producers of raw materials, and thence, mainly in the form of payments for personal services, back once more to consumers. From various places in this main stream, smaller streams take part of the money directly or indirectly back to consumers. This circuit movement is one great difference between the flow of money and the flow of goods. When goods get into the hands of the consumers, they are usually disposed of, and thus they are withdrawn forever from the stream. On the contrary, most of the money that reaches the consumer is paid by him to retailers and to others; and thence it proceeds around the circuit.

The stream of money from use in consumption of new goods back to use in consumption of new goods, we shall call the circuit flow of money. The average time taken by money in making this round through the various streams, we shall call the circuit time of money. Its rate of

flow we shall call the circuit velocity of money. The circuit velocity is the reciprocal of the circuit time. If, for example, the circuit velocity is two times a year, the circuit time is one half year.

We are not now speaking of what economists call the velocity of money. By that term, they mean the frequency with which money is used for any purpose whatever, that is, its turnover within a given period of time. Obviously, without due consideration of the velocity of money, no discussion of monetary problems is complete; for one dollar spent ten times, if spent on the same day and for the same purpose, has about the same effect as ten dollars spent once. In any given period of time, the amount of money actually spent is the product of the quantity of money and its velocity. But before we can determine exactly how the movements of money affect business, we must consider certain phases of the circulation of money—particularly, the circuit velocity of money—that may be as significant as the velocity of money as a whole. If the volume of new consumers' goods moving into consumers' hands maintained a definite ratio to the total volume of goods in circulation, the circuit velocity of money would tend to bear a definite ratio to the velocity of money as a whole. In that case we should have no special interest in the circuit velocity of money. But our entire discussion is based on the assumption that these definite ratios are not maintained for any considerable time. We assume, on the contrary, that all periods of major business disturbances are characterized by an upsetting of the ratios that hold in times of relative business stability.

The equation of exchange which takes into account only the velocity of money in general takes no account of some of the specific causes of business fluctuations. For some purposes, the general equation $MV = \sum pQ$ is not as useful as the equation $MC = \sum pq$, in which C is the circuit velocity of money and q is the volume of new consumers' goods sold to consumers. We should consider separately changes in the velocity of money spent for consumers' goods and changes in the velocity of money used in other ways. Money is not spent more frequently in retail markets merely because it is spent more frequently in other markets. Money may work faster in order to pass woolen goods through more hands on their way to clothiers' shops, without passing more garments through the shops. In other words, additional middlemen may make use of money without making additional sales to consumers. Both velocity and quantity of money might remain constant—that is to say, people might have the same amount of money and spend it as rapidly as ever—and yet the markets might sense trouble. For if people decreased the amount spent for new goods within a given period of time, and to the same extent increased the amount spent in other ways, they would thus decrease the circuit

velocity of money; and they might thereby temporarily depress business, without decreasing the velocity of money. Under certain conditions, therefore, the turnover of money as a whole may have less to do with business fluctuations than the turnover of money in its particular function of moving goods into the hands of consumers.

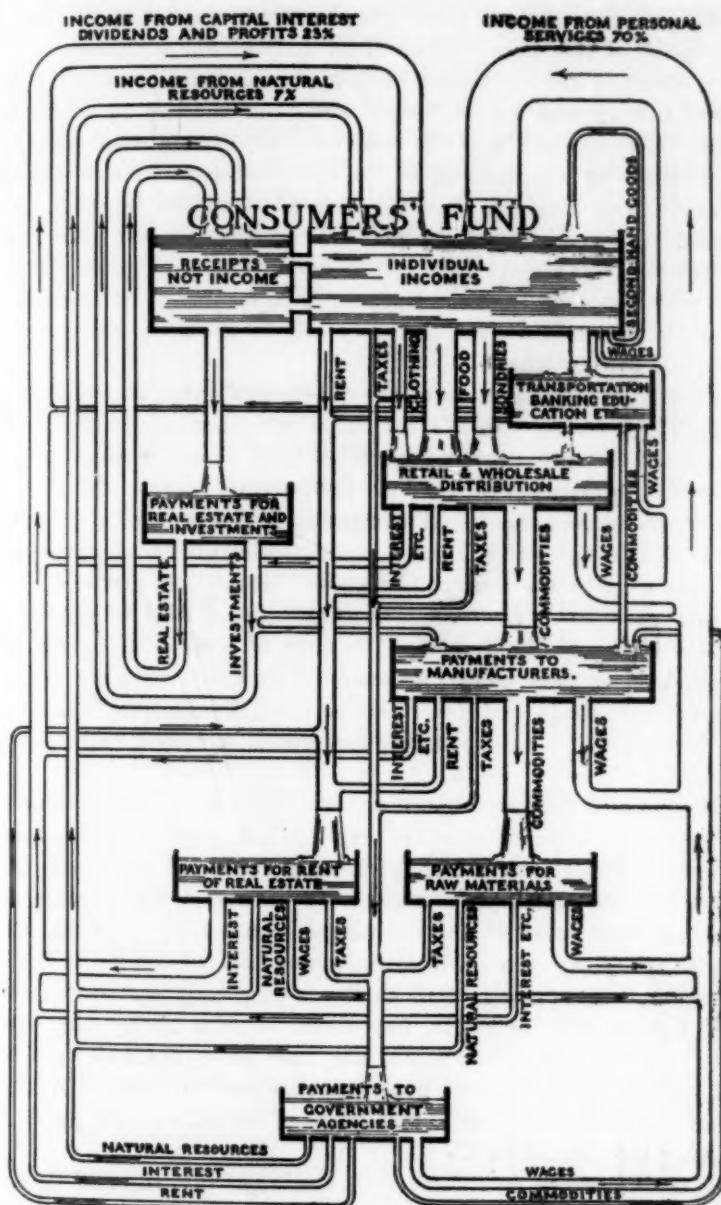
It is manifestly impossible to predict the course which a given coin will take from use in consumption back to another use in consumption. Even if we knew exactly what course it had just taken, we could not know what course it might next take. And it would be exceedingly difficult to find out. To follow accurately a single circuit of even a small part of our currency—our silver dollars, for instance—would require much of the time of the entire population and thus interfere with their circulation. We can, however, study the factors that tend to change the circuit velocity of money as a whole.

Money is in circulation, in our use of the term, as long as it is in the possession of somebody. The unused lending power of banks is not money in circulation, for it is not available for expenditure. It becomes money only through the joint act of a bank and a borrower. The lending power of banks is like gold in the mines; it is not money until somebody puts it where it can be used as money. All bank deposits subject to check are money in circulation, no matter what proportion of these deposits are checked out in any given month, just as all pocket money is in circulation regardless of the amount that is spent on any given day. Within how long a period of time a volume of money equal to the total volume in circulation will be spent by consumers depends upon the circuit time of money. In other words, whether the money spent in consumption is more or less than the total volume of money in existence depends on the length of the period we are considering. In a certain sense, it is true, all money is idle except when it is actually being used in exchange; but in that sense only one dollar out of many thousands is active, and all the rest are idle, in any given minute. It is only a matter of convenience which definition we employ. Either, if used consistently, leads us to the same conclusions as the other.

Diagram of the Flow of Money

The diagram on the opposite page, similar in plan and purpose to one devised by Mr. M. C. Rorty, represents, in a general way, the circuit flow of money. To find fault with this diagram from an engineering standpoint would not be difficult; neither would it be sensible. All we should ask of these reservoirs and pipes is that they serve the purpose at hand. In the main, subject to certain qualifications to be made presently, this diagram does serve our purpose. It pictures the flow of money when business is relatively stable.

THE CIRCUIT FLOW OF MONEY



The double reservoir at the top shows the amount of money in the hands of individuals and available for expenditure in consumption. This is what we have previously called the consumers' fund. The reservoir is divided into two parts in order graphically to represent the fact that a large part of the money received by individuals is income, most of which is spent in consumption; while a smaller part is money received from the sale of real estate, bonds and stocks, most of which is re-invested. The two parts of the reservoir, however, are connected with pipes, in order to take account of the fact that some income is invested and some money received from the sale of securities is spent in consumption. These connecting pipes are important. We must bear in mind that they are always partly, and never wholly, clogged. By their aid, we may visualize the fact that we have no means of knowing how much of the consumers' fund actually will be spent in consumption in any given period of time.

Into the right-hand section of the consumers' fund, three large pipes are emptying: one represents the large proportion of individual incomes, about 70 per cent, which is derived from personal services; the others represent the smaller proportion, about 30 per cent, derived from management and property, including rentals, royalties, interest and dividends. These percentages are the averages, in round numbers, of the figures for 1909-1918, found in the admirable study of *Income in the United States*, published in 1921 by the National Bureau of Economic Research. The sizes of some of the pipes in the diagram, however, are based, necessarily, on much rougher estimates. No dependable study has yet been made of the proportions of individual incomes which are spent for new goods, services, real estate and investments.

Leading out of the reservoir of consumers' incomes are various pipes which represent expenditures for rent, taxes, clothes, food, sundries and wages. The relative, estimated amounts spent for these various purposes are indicated approximately by the size of the pipes. It will be observed that most of the individual incomes are paid at once to those who are engaged in the distribution of finished commodities. These distributors, in turn, pay much of the money they receive directly to manufacturers, who, in turn, pay much of the money they receive directly to producers of raw materials. All along the way some of the money, mainly in the form of wages, profits and interest, gets into the hands of individual consumers and is spent for consumers' goods, thus completing the circuit flow.

Some of the money completes the circuit quickly, some of it, slowly. As shown in the diagram, a part of the consumers' income is spent directly for personal services and a part is paid to individuals for

second-hand automobiles and other "old goods," and is thus passed directly from one consumer to another. Most of the money spent by consumers, however, takes a longer course before it finds its way back to the consumers' fund. Part of the money that is spent for "new goods"—a pair of shoes, for example—goes to the wholesaler; part of that money goes to the manufacturer; part of that money goes to the tanner; part of that money goes to the farmer who raised the stock; part of that money goes to the producer of harvesting machinery; part of that money goes to mechanics in the factory, and is thus returned to the consumers' fund. During the circuit from consumer back to consumer, some of the money spent for the pair of shoes passed through more hands than in our illustration; some of it passed through fewer hands. The part that the retail shoe dealer paid immediately in weekly wages to his clerks made the circuit quickly. The part that was set aside in cash as undivided profits of the shoe manufacturer may have taken a long time to make the circuit. It is the average time taken by all the money in the flow from one use in consumption to another use in consumption that we have called the circuit time of money.

The Flow of Money and the Flow of Goods

Upon the rate of flow of money into the reservoir of personal incomes depends the even flow of goods from producer to consumer. The stream of money is, in fact, a line of communication. Money has often been compared with roads. Adam Smith even went so far as to anticipate this age of aeroplanes: he called money "a sort of wagon way through the air." He emphasized the fact that money is unlike factories and stores. Rather, it is like railroads and telephones; for its function is not to produce or to exchange goods, but to facilitate their production and exchange. It is only a means to an end.

Nevertheless, anything that happens to any of our lines of communication so as to disturb the even flow of goods can retard the production and distribution of goods. Our railroad lines are obviously of crucial importance. At times some of our freight cars get side-tracked and lie idle; some get diverted from more essential to less essential uses. Now and then a bridge falls down and traffic is held up. Sometimes transportation facilities fail to meet increasing needs, as they did throughout the United States during the car shortage of 1920. Whatever thus prevents the orderly movement of goods tends to prevent the further production of goods.

Similarly, whatever interferes with the monetary lines of communication—that is to say, whatever retards the even flow of money from consumers back to consumers—tends to retard the flow of goods and thus to disturb business as a whole. Some money gets side-tracked in

hoards, in cash balances, even in banks, and is unemployed for an unusually long time; some money gets diverted at times from more essential to less essential uses. Now and then a bank fails, and there is a sudden stoppage of the trade movements that were dependent upon the tied-up funds of the bank. Sometimes the consumers' fund is increased out of proportion to increased production, as in most countries in the years following the World War. At other times, not enough money flows into the consumers' fund to maintain the production-consumption equation: the volume of finished goods increases more rapidly than the volume of consumers' expenditures. In short, whatever happens to the medium of exchange at once affects the whole industrial world in some way; whatever prevents the circulating purchasing power from moving goods to final consumers interferes with the further production of goods.

Variations in the Rate of Flow

What it means to business to have variations in the rate of flow of money into the consumers' fund may be seen if we continue to think of this fund as water in a vast reservoir. The simile need not mislead us if we have in mind that it proves nothing, and if we take care not to work it too hard even for purposes of illustration. Let us observe, then, that some of the water in the reservoir moves through conductors to the turbines of electrical plants, whence power is transmitted to distant cities where it moves street cars, lifts elevators, runs washing-machines, cures diseases, illuminates buildings and in a thousand other ways sustains the activities of our complicated modern life. Some of the water moves through irrigating ditches to innumerable farms where it turns barren wastes into fields of wheat. Some of the water runs through mills where it moves machines that make the wheat into flour. Some of the water moves in river beds where it has its part in carrying the wheat and the flour from those who have a surplus to those who have none. Thus, at all times, a large part of this current supply of water is doing economic work.

A part of this water supply, on the other hand, has no share in the production and distribution of goods—does no economic work whatever. At times, some of it stays on the surface of the reservoir in the form of ice; it is seasonally unemployed. Some of the water, after turning the wheels of industry at one place, moves on down the river until it breaks through the bank and comes to a stop in a dead basin. Thus it is withdrawn from the channels of commerce; it can do no more economic work until somehow it is released and again set in motion. There is another portion of the supply in the reservoir that is completely lost to industry; it evaporates before it has been used in any way. And there is still another portion that evaporates along

the routes of commerce, after it has played a part in the world's work. Whatever thus disappears by evaporation is subtracted from the current supply of power; the loss is made good only when the power is re-created, as it is when the rain falls and the water flows again into the reservoir.

Stability in production, as far as it depends on this water supply, is concerned only with *the rate of flow*. Nothing that happens to the water supply can upset production schedules provided the net result is an even flow of power, day in and day out, in the same channels, performing an unvarying amount of work. How much or how little of the water supply evaporates, or leaks from the pipes, or remains frozen in the reservoir, or is held back in dead basins, is of no consequence, provided the total volume thus withheld from industry and its distribution remain the same. Only changes count. Until there are changes in the rate of flow, the work done will be plotted on the graphic chart as a straight line.

Similarly business stability, as far as it depends on money, is concerned primarily with the rate of flow of money into the consumers' fund. As far as stability is concerned, it does not necessarily make any difference how much money is in government vaults, or is frozen in loans, or is idle in hoards, or is carried in pockets and tills as daily cash balances, provided the volume of money thus withheld and the volume of goods coming upon the markets remain the same from day to day. Only changes count. When money that has been idle is put to work, or money that has been at work retires temporarily from business, it changes the rate of flow of money from consumption back into consumption: that is to say, it changes the circuit velocity of money. At any stage of the business cycle, a change in the circuit velocity of money tends to cause a change in the state of business.

Whether the change is good or bad for business depends on the state of business at the time. This appears to be overlooked in much that is said about "economizing credit," "making money more efficient," and "bringing hoards out of hiding." The usual assumption seems to be that anything that increases the velocity of money in general, or the amount spent by consumers, is advantageous to business in general. It may be good or bad for business. It all depends on economic conditions at the time and the nature of the transactions which are affected by the increased "efficiency" of money.

The Circuit Time of Money

How long does it take, on the average, for each dollar to make this round from one use in consumption to another use in consumption? What are the factors which retard or accelerate the flow? What are the effects of these fluctuations on the state of business activity? What

are the correlations between changes in the velocity of money and changes in the circuit velocity of money? We shall now venture to open up the discussion of these questions in a preliminary way, though it may be many years before research will answer these questions as definitely as they must be answered before anyone can account in full for the ups and downs of business.

What is the circuit time of money? The available statistics are not a sufficient basis for an answer to this question. If we use Professor Fisher's estimate of the volume and velocity of money in the United States, in the year 1909, and if we then, from the estimate of the National Bureau of Economic Research for the income of that year, guess at the value of new goods bought by consumers, we arrive at an estimate of the circuit time of money. If the total money transactions for that year were \$400,000,000,000, and the total amount of money in circulation was \$8,680,000,000, the average velocity of money was approximately 46. If consumers spent \$20,000,000,000 for new goods during that year, the circuit time of money was 8,680,000,000 divided by 20,000,000,000, which gives .434 years, or 158.4 days. On the basis of these figures, the circuit velocity of money, the reciprocal of the circuit time of money, would be approximately 2.3. This would mean that for every dollar spent by a consumer for new consumers' goods during 1909, approximately nineteen dollars were used for other transactions. That is to say, although each dollar was used about once in every eight days for some purpose or other, it was used only once in 158 days for the purpose of passing new goods into the hands of consumers. Looking back at our diagram, we may visualize these statistics of exchange by thinking of the dollars that leave the consumers' fund at the top through the new goods pipes as being used, on the average, nineteen times elsewhere in the circuit (including parts of the flow of money that are not shown) before they are again used in consumption. But there is so much guessing in these figures that they are useful only for purposes of illustration. If the turnover of bank deposits subject to check is now about twenty-five times a year, as estimated by the statistical division of the Federal Reserve Bank of New York, the figures for velocity in our illustration are probably far from right. Our research agencies, no doubt, will provide us some day with more dependable estimates than any now available for the velocity of money and the annual expenditures of consumers for new consumers' goods.

Defects in the Diagram

Evidently, in order to represent all the uses of money in the course of its journey from consumer back to consumer, we should need a much more complicated diagram. It would, in fact, be so complicated that,

without a vast amount of study, it would be confusing rather than clarifying. For that reason, we have not shown many of the money movements of minor importance.

Nor have we shown all the movements that are of major importance. The reader has already observed, no doubt, that the diagram overlooks the fact that nearly all money, on its way from consumer to consumer, passes through banks. Up to this point, we have directed attention to the place in the circuit flow of money where it is spent by consumers. We have made this the center of our interest because consumption is the end for which goods are created; and because we wish to raise the question whether anything that happens to money in any other part of the circuit can cause a major disturbance in business, as long as just enough money continues to be spent in consumption to take away the goods without a change in the price level. There is good reason, however, for paying special attention to that part of the circuit in which money flows through the banks; for it is literally true that most of the money that is spent in consumption begins and ends its career in a bank. When a farmer who is waiting for his wheat to mature applies to the bank for a loan of ten thousand dollars, the bank increases its deposits to that extent, minus the discount. The total volume of money in circulation is thereby increased. As soon as the farmer spends the money, it proceeds on its way around the circuit. In due time, if all goes well, the farmer sells his wheat and pays the loan at the bank, thereby reducing the amount of money in circulation by ten thousand dollars. Thus, in a certain sense, most of our money is created and extinguished in the banks.

It is sometimes said that the money is not extinguished by the payment of a loan since the bank is at liberty, the moment the loan is paid, to lend precisely the same amount to another borrower. The fact that the bank passes on the purchasing power by means of different pieces of paper is said to make no difference. When a bank loan is paid, however, the amount of the loan is actually withdrawn from the circuit flow of money; and an equal amount is returned to the stream only by a new joint act of the bank and a borrower. Unless we think of bank deposits as being thus created, and extinguished, and re-created, we leave out of account one of the chief causes of fluctuations in consumers' incomes. If all the money that flowed into the banks flowed out again at a constant rate, the banks could be omitted from the diagram, because they would neither retard nor accelerate the flow of money into the consumers' fund. But the banks must be taken into account because they, in conjunction with their customers, cause changes in both the quantity of money in circulation and in the circuit time of money. No diagram is complete, therefore, which ignores these changes.

A similar defect in our diagram is the failure to make allowance for the action of the government in changing the amount of money in circulation. Our system of reservoirs and pipes makes no provision for putting any more money into the stream or taking any money out. All the money flowing into the public treasury at the bottom of the page is represented as coming directly or indirectly from individual incomes. A complete diagram, however, would take account of the fact that governments—not infrequently, as the world has recently observed—coin money or print money or otherwise supply the deficiencies in the government reservoir, whenever money is flowing out through expense conduits faster than it is flowing in through taxation conduits.

Factors that Alter the Circuit Time of Money

Our next question is, what are the factors which retard or accelerate the flow of money from consumer back to consumer? This question would not concern us if money actually flowed through the channels of commerce as steadily as in our diagram. Here we have pictured all the pipes as unobstructed, free from leaks, and unvarying in size. If the circuit flow of money were such, day in and day out, that we could accurately represent it by means of such a simple and static picture, and if the flow of goods were equally steady, industry would be perfectly stable. There would be no business cycles. But money never does flow through the arteries of trade as steadily as this. The rate of flow changes from time to time, often so slowly that the ordinary observer notices no change at all; sometimes so rapidly that nearly everybody is aware that something has happened, though few know that it has happened to money, and fewer still know exactly what it is that has happened to money. Furthermore, variations in the rate of flow come more rapidly in some parts of the circuit than in others. These facts might be suggested by means of gate-valves in all the pipes, subject to the control of individuals. Nothing but a motion picture, however, could show all these multifarious and kaleidoscopic changes. Our simple diagram can help us only in a general way to visualize the major movements. Not until we consider in what specific respects this diagram fails to depict what actually happens to money during the circuit are we likely to account for business instability.

As a means of suggesting profitable fields for research in connection with the circuit time of money, we may enumerate some of the causes that accelerate and some of the causes that retard the circuit flow. For the purposes of this enumeration, we shall assume, first, that the total money in circulation remains the same and, second, that the effect of each cause is not offset by the operation of other causes.

The circuit time of money is ordinarily decreased—that is to say, money moves around the circuit faster—under the following conditions:

(1) When there is an increase in the total amount paid as wages; since wage-earners spend a larger proportion of their money for goods than do other groups of consumers.

(2) When taxes are decreased; since ordinarily money paid in taxes comes from the consumers' fund, but finds its way back slowly.

(3) When there is a general belief that prices are about to rise; for then it appears that the quicker we spend our money, the more we get for it. Consequently, we carry smaller average cash balances, and spend a larger proportion of our money for goods.

(4) When there is general expectation of higher wages and higher profits; for at such times people spend money in consumption more quickly and more freely.

(5) When people save less than usual; since thrifty people usually have on hand some money, intended for their savings banks, which they have not yet deposited. As the total savings of the country decrease, there is a corresponding decrease in this money waiting to be invested.

(6) When there is an increase in the amount of money borrowed by consumers for use in consumption.

(7) When a larger proportion of exchanges are made by means of bank checks; since consumers who pay their bills by check are likely to make most of their payments very soon after most of their income is received, usually on the first few days of the month, and there is therefore less need for keeping money on hand. Whereas people who pay all their bills with currency usually distribute their payments over longer periods of time; and, in order to do so, they carry larger average daily cash balances in proportion to their expenditures.

(8) When pay days come more frequently. As a rule, those who sell their services or lend their money collect their pay at fixed intervals of time; and, as a rule, what they receive on one pay day they spend before the next pay day. For the most part, wages that are received weekly are spent weekly; salaries that are received monthly are spent monthly; rents and dividends that are received quarterly are spent quarterly. All this in turn affects the receipts and, therefore, the expenditures of those who sell goods. Therefore, more frequent payments of wages, salaries, or dividends mean more rapid circulation of money from use in consumption back to use in consumption.

(9) When goods pass through fewer hands on the way to the consumer; because of the elimination of some of the middlemen, for example, through the vertical integration of industry.

(10) When there is a decrease in the amount of money used to transfer real estate, stocks, bonds, etc.; since money, while in use for such purposes, is not used in consumption.

(11) When the volume of undivided profits hitherto carried in the form of money is decreased.

Under all these conditions, ordinarily, the circuit flow of money is accelerated: under the opposite conditions, it is retarded.

The influence of most of these factors on the velocity of money has been considered by various writers, notably by Professor Irving Fisher, in *The Purchasing Power of Money*. But changes in these factors do not affect velocity and circuit velocity in the same degree or even, in all cases, in the same direction. How important these differences in degree and in direction may be, as factors in the price level and the state of business activity, we cannot tell without additional research. The last three, at least, of the conditions enumerated above appear to merit much further study.¹

But throughout this enumeration we have assumed that the total volume of money in circulation remains the same; whereas we are well aware of the fact that the volume does not remain exactly the same for any two days, and that, at times, the volume changes rapidly. To take this fact into account, however, we have only to change our conclusions slightly. Instead of saying, for example, that money flows faster when there is an increase in the total amount paid as wages, we must say "when there is an increase in the proportion disbursed as wages of the total volume in circulation." Similarly, we must make some of our other statements relative rather than absolute.

We cannot dismiss so easily our assumption that the effect of each cause is not offset by other causes. We are not at all sure, for instance, of the exact effect of increased taxes on undivided profits, or on wages, or on stock exchange transactions. We do know that the nature of the taxes will make a vast difference, and that we are not prepared fully to explain business fluctuations, or thoroughly to understand national monetary policies, until we have the aid of further research concerning the effects of various forms of taxation, under various conditions, on the circuit time of money. We need further research, as well, concerning fluctuations in the daily balances of individuals in pocket and in bank. Before we can determine the influence of these fluctuations at different stages of the business cycle, we must correlate them with fluctuations in wages, prices, unemployment, and volume of trade. We must also find the correlations among other factors that influence the circuit flow of money. One conclusion, however, we can safely draw without further investigation: variations in the factors enumerated above are to such a large extent independent of each other that there is virtually no chance that these variations

¹This question and most of the others that are raised in this paper are further considered in *Money in the World's Work*, a volume now in press, of which "The Circuit Flow of Money" is one chapter.

would counterbalance. The circuit time of money is constantly changing.

Conclusions

In order to forecast business fluctuations, or even to explain those that have already occurred, we should know more than we now know about conditions that determine fluctuations in the amount of money spent in consumption, including factors that alter the circuit time of money. How little we actually know is shown by the amazement among men generally over the way in which retail sales were sustained during the depression of 1921. Business as a whole was totally unprepared for the effective consumers' demand that continued after the slump in wholesale markets. Yet nothing magical happened. Every dollar spent by consumers came from somewhere, went somewhere, and left a record of some sort, nearly every time it was spent. These records, it is true, are not all that they should be. Measures of the flow of money through the various channels are not as comprehensive, or as accurate, or as detailed, or as readily available as we should make them. Yet even such records as we now have for 1921, if assembled, correlated, interpreted, and tested for error, by approved statistical methods, would undoubtedly go far toward explaining what appears to be a mysterious persistence of consumers' demand. Even without such records for 1921, the consumers' demand for that year might not have seemed at all mysterious, if similar records of previous business cycles, similarly interpreted, had been available and generally understood by leaders in commerce and finance. For it is probable that the various forces that determined the volume of daily sales in 1921 operated in about the same way, in varying and measurable extents, as in previous periods of depression. It is possible, furthermore, that had we known, in the years following the World War, as much as we might readily have known about the circuit flow of money in previous years, in relation to the flow of consumers' goods, there would have been neither the extreme business expansion of 1919 nor the disastrous contraction that followed. For the major causes of the expansion and the contraction were monetary and subject to human control in a far greater degree than has hitherto been deemed possible.

WILLIAM T. FOSTER.

REVIEWS AND NEW BOOKS

General Works, Theory and Its History

Principles of Economics. By FRANK W. TAUSSIG. Volume II. Third edition revised. (New York: The Macmillan Company. 1921. Pp. xix, 576.)

This is a thoroughgoing revision of this well-known work. The chapter on The General Property Tax has been omitted. Account has been taken of recent publications and legislation. For example, the general conclusions of the study on *Income in the United States* by the National Bureau of Economic Research have been included in the chapter on Inequality and Its Causes and a section has been added giving the essential features of the Transportation act of 1920.

Those familiar with the earlier editions will find the fundamental theories unchanged but will note increased emphasis on the facts and consequences of inequality and a clearer expression of the spirit of social sympathy. This is well illustrated by the discussion in the newly added chapter, "The Wages System. Strikes and the Right to Strike." The wages system necessarily restricts the liberty of "the individual workman." "He must obey orders." This involves drawbacks of two kinds, material and spiritual. The first means slackness of effort. The interest of the workman in the output is remote. The results must be attained through the "drive" method. The spiritual loss has received more attention of late years. "We are slowly becoming awake to the plain and simple fact that the happiness of all men is immensely promoted if their daily work be made interesting and pleasurable."

As to the right to strike, emphasis is laid on the power of discharge and its terrible consequences to the workman. "No general statements can picture adequately the ordinary states of feeling: constant uneasiness, easily intensified to terror, on the part of the men; consciousness of power and determination to hold power among the so-called masters" (p. 290). And again: "If the public wishes to secure the gains which accrue from private property and private management, it must accept the offsets which arise from strife and stoppage. To restrict the right to strike and leave absolute control of employment to private managers is to give strength to one side and take it away from the other" (p. 293). It is only when this power of discharge has been materially modified and the workman assured of a fair hearing of grievances that the public "is entitled to protect itself against efforts to stay the operation of vital industries." Too much is not to be expected from the device of employee representation. The ground is not yet prepared for its full effects, for the indispensable prerequisite

of "a real spirit of meeting the men on their own ground and with a frank recognition of their own methods of joining together for their own ends" has not yet been accepted by the employers. Nor have workmen as a class developed to the stature required for real sharing in problems of management. This is evidenced by the extraordinary rarity of the success of plans for coöperative production. Employee representation will not prove "a cure-all for the social ills, but of promise toward smoothing the working of the industrial system as now established" (p. 297).

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Boston University.

Bestimmungsgründe des Preises. By OSKAR ENGLÄNDER. (Reichenberg: Gebrüder Stiepel. 1921. Pp. 300. 52 K.)

As experienced readers know, the date of publication of a book does not always tell us what period of thought it represents. The two may go far apart. Engländer's volume is an illustration of this point. Though published last year, it expounds in the main an economic subjectivism that originated a generation or more ago. We find again a qualitative price analysis within a system of catallactics, of statics, of frictionless competition which permits only one price for each article on the market. There is Menger's classification of goods into those of first, second, and third order; the distinction between reproducible and non-reproducible goods; and the imaginary case of first one buyer, then several buyers, and finally of buyers and sellers bidding against one another. Costs are shown to be either expenses (which begs the question) or else other facts altogether out of place in catallactics. Wants are contrasted with purchasing power, which as usual is assumed to be first equal, then unequal for different buyers. Thus price is determined at bottom by demand alone, i. e., by personal valuations in conjunction with purchasing power, no attempt being made to relate these facts quantitatively to supply.

Now, all this is of course an old story and cannot be the *raison d'être* for the book at this time. If therefore it is to be judged aside from its excellent, but quite conventional, presentation of subjectivistic economics, it must be on the score of certain minor corrections. Engländer, that is to say, follows on the one hand Wieser and Zuckerkandl—which accounts for his mode of approach to the problem. But he has also borrowed from F. Brentano and O. Kraus, rejecting hedonistic sensationalism. Wants and gratification are discussed without reference to morality or the supremacy of an "economic man." Whatever the processes of valuation (and Engländer apparently is not influenced by the most recent psychological and philosophical developments in this field) the springs of human action are not considered a subject

for economists *as such*. In the second place, the decisive rôle of the margin in price determination is flatly denied. Psychic margins, though real and inevitably connected with orders of preference, are not truly reflected in exchange rates. We have marginism without margins! The existence of consumers' rents is cited as proof of intra-marginal prices; while unequal rates of diminishing utility for different goods are held to prevent an equalization of the margins of gratification. In the third place, the odious question of the relation between consumption and production goods is got rid of by declaring for a non-causal interdependence of the two groups of goods.

Whether this sort of compromise between the old subjectivism and a strictly objective, quantitative analysis of economic data is worth while need not here be debated. To the reviewer the admissions of Engländer that valuations *per se* are non-economic facts, that income profoundly modifies the measurement of utilities, and that psychic events are incommensurable, seem most damaging. It is right however to detach viewpoints from quality of workmanship. And so it should be repeated that of its kind Engländer's is a meritorious piece of work. Students of the rise and fall of marginism may find it both instructive and interesting.

O. FRED BOUCKE.

NEW BOOKS

BRIGGS, M. *A textbook of economics*. (London: Clive. 1921. Pp. 527.)

DOW, G. S. *Society and its problems. An introduction to the principles of sociology*. (New York: Crowell. 1922. Pp. xiv, 594. \$2.75.)

GIDE, C. *Premières notions d'économie politique*. (Paris: Albin Michel. Pp. 185.)

This little masterpiece is the first of a *petite bibliothèque de culture générale* announced by the publisher. Its literary charm, its gentle humor and its appeal to the imagination make it almost unique among economic publications. Not at all the usual primer of economic theory, it is rather a survey of the evolution of our principal economic institutions. After pointing out some of the indications of economic life in the behavior of animals, it presents a series of rapid sketches of commerce, money, property and its inheritance, land leases, loans at interest, the wages and profits system, competition and coöperation. It was apparently written during the war, although it is entirely free from the rancors of that unfortunate time. In view of the government's enormous borrowing Professor Gide predicts that everyone will become a *rentier* but that few if any will be able to live on their *rentes*. One wonders how many have already been driven by want to sell the *rentes* they bought during the war. In the last chapter the author indicates the unsatisfactory results of competition and declares his faith in coöperation and solidarity.

G. A. K.

GOETSCHEL, E. *Gut, Geld und Kapital. Ein Beitrag zur Böhm-Bawerk'schen Theorie*. (Bern: Paul Haupt. 1921. Pp. 156. 17 M.)

HANEY, L. H. *History of economic thought; a critical account of the origin and development of the economic theories of the leading thinkers in the leading nations*. Revised edition. (New York: Macmillan. 1921. Pp. xix, 677. \$3.50.)

HENDERSON, H. D. *Supply and demand*. (New York: Harcourt, Brace & Co. 1922. Pp. x, 181.)

MAGEE, J. D. *Introduction to economic problems*. (New York: Scribner's. 1922. Pp. ix, 363.)

MARX, K. *Theorien über den Mehrwert*. Fourth edition. (Berlin: Karl Kautsky. 1922. 80 M.)

VON PHILIPPOVICH, E. and SOMARY, F. *Grundriss der politischen Oekonomie*. Vol. II, *Volkswirtschaftspolitik*. Part II. Tenth edition revised. (Tübingen: Paul Siebeck. 1921. Pp. 343.)

This is a revision by Dr. Somary of a part of the late Professor Philippovich's encyclopaedic work, bringing it up to date. It covers the topics of transportation, commerce, banking and speculation, and *Einkommenspolitik* (including under that title the problem of the unemployed, workmen's insurance, poor relief, methods of industrial remuneration, wages boards and housing). The section of transportation strikes the reviewer as especially well done, although the two pages of fine type on American railway experience contain several errors, e. g., that there was no stock exchange speculation in railway securities before 1898. The section on banking seems too condensed to be intelligible to the beginner, and treats some controversial matters too briefly. *Einkommenspolitik* covers somewhat over one half of the book. Dr. Somary states that the revision emphasizes more than the earlier editions the dependence of social policy on productive power. Menaced by the prospective bankruptcy of important central and east European governments, *Sozialpolitik* can be continued at all only in so far as it does not diminish the national dividend.

G. A. K.

SCHELLE, G. *Oeuvres de Turgot et documents le concernant*. With biography and notes. Vol. IV. (Paris: Alcan. 1922. 40 fr.)

SCHULTZ, E. *Die Zerrüttung der Weltwirtschaft*. (Stuttgart: W. Kohlhammer. 1922. 75 M.)

SOUTHERNS, L. *Physical economics: an essay on fundamental principles*. (London: Labour Pub. Co. 1921. Pp. 67. 2s. 6d.)

TURNOR, C. *The land and its problems*. (London: Methuen. 1921. Pp. 254.)

VON KOCH, F. M. *On the theories of free trade and protection*. (London: King. 1922. Pp. 34. 1s.)

WEBER, M. *Grundriss der Sozialökonomik*. III. Abt.: *Wirtschaft u. Gesellschaft*. II. *Typen der Vergemeinschaftung und Vergesellschaftung*. 2. Teil. (Tübingen: Mohr. 1921. Pp. iii, 181-356. 30 M.)

Economic History and Geography

International Finance and Its Reorganization. By ELISHA M. FRIEDMAN. (New York: E. P. Dutton & Company. 1921. Pp. xli, 702. \$7.00.)

In this financial history of the World War, as it might properly be termed, the author has admirably accomplished his purpose of presenting a precise account of the financial changes in Europe during and since the war, together with a summary of the various proposals for financial reconstruction. The book is divided into two parts, section A covering the effects of the war, and section B, the financial reorganization.

In section A such subjects as public debt and taxation, currency and credit, and foreign exchange are discussed. Although nothing particularly new has been added, the author has unquestionably rendered a service by the able manner in which he has approached the loan and taxation theories of war finance. Good judgment has been shown in exposing at the very beginning the fallacy contained in the idea that war burdens can be shifted to future generations by means of loans. The author has also done much to clear the atmosphere of some of the popular misconceptions regarding the external and internal debts of nations. The following quotation from page 22 summarizes his views in this regard:

A foreign debt requires annual interest payments which may be effected by an exportation of goods, and to that extent the debt represents a diminution of the real wealth of a country. But an internal debt is a paper debt; it does not diminish the wealth of the nation as a whole. Repudiation of the internal debt, a capital levy, or a scaling down of values, would leave the nation's wealth unaffected although it might disturb the economic condition of the country. A paper debt, held internally, never ruined a country. During the Revolution, France repeatedly repudiated her debt, and yet at the end of the period was undoubtedly richer than at the beginning.

In section B the author discusses the factors in the financial reorganization, taking up the capital levy, national bankruptcy, inter-allied debts, the German indemnity, international loans, and New York and London as financial centers. The author devotes considerable space to a capital levy. He approaches this problem from the same angle as that taken in discussing the loan method of war finance. He courageously attacks the problem from the social point of view and as a consequence simplifies it and at the same time clears away many of the popular misconceptions surrounding it. In substance, he shows that through a capital levy society merely acknowledges that individual assets which are social liabilities serve no beneficial purposes when they exist in exceptionally large volume. He points out that a recognition of their true status through an attempt to apportion the existing

burden on some equitable basis is not necessarily a revolutionary step nor a social burden. It readjusts an existing burden but adds no new one. The inter-allied debt controversy is impartially presented with a comprehensive review of the various opinions expressed on this subject by all of the principal countries involved.

In appraising New York and London as financial centers, the author is of the opinion that while New York will not replace London as the world's financial center, it will assume a position of increasing importance in future international financial operations. Although London suffered as a banking center because of the war, New York cannot supplant it because it lacks the machinery and personnel necessary really to serve as the world's banking center. Until New York can develop a wide market for both international acceptances and foreign securities, it has little chance to compete effectively with London.

This book constitutes a real contribution to current economic discussion. The author has gathered together and made a careful selection of the huge mass of material that has been written upon the subject of national and international finance in recent years. Through orderly and logical arrangement, the most important material has been presented in an interesting manner. As a source-book and history of the financial ills of the world growing out of the war, it is undoubtedly the most comprehensive work that has yet appeared. The book will prove serviceable not only to the student but to the layman.

W. F. GEPHART.

America and the Balance Sheet of Europe. By JOHN FOSTER BASS and HAROLD GLENN MOULTON. (New York: The Ronald Press Company. 1921. Pp. 361. \$3.00.)

"The situation as it really is," "The reparations dilemma," and "Remedies—proposed and real" are the titles of the three parts of this book. In part I are discussed depreciated exchange, national debts and budgets, and the European and German monetary situation. The fundamental principles involved in such questions have not changed since the book was written, and the authors' discussions of the outstanding features are as pertinent now as when the book was written. Part II, on the reparations dilemma, considers Germany's ability to pay and the amount that the Allies are willing to receive. The chief value of the authors' discussion of this question is the manner in which they show the political and economic aspects of the reparations question, much of which the Europeans themselves either do not understand or are not willing to recognize as facts in the situation. In part III the authors describe the many plans which have been advanced on the assumption that Europe could be restored at once to normal eco-

conomic wealth. They very properly view all such efforts as vain. Since the book has appeared, one of the most promising plans, "the ter Meulen Plan," has been abandoned and many other visionary plans have been long since laid aside.

It is in the concluding chapter, under the heading, "The way out," that the authors abandon their well-performed task of describing the chief features in the European problem, and proceed in this last chapter to decide what are the basic requirements for the restoration of Europe to normal industrial and financial existence. In their opinion, there are four basic considerations. First, the increase of domestic products; second, the balancing of international trade; third, the restoration of the gold standard; and fourth, the balancing of international budgets.

Under the topic of balancing international trade, the subject of canceling debts as well as abolishing trade barriers is taken up, and a better understanding of the fundamentals of international trade is urged. This is doubtless all very true, but there is as little promise now as there has been for the past century that the rank and file of people, either in this country or in Europe, will abandon their nationalistic beliefs regarding the importance of carefully restricting and regulating trade so that their own country will receive the chief benefit. Most of us are yet mercantilists in our thinking on international trade.

In regard to maintaining the gold standard, the authors point out the necessity of a redistribution of the gold supply of the world, and describe the ways in which this may be brought about. Throughout the book there is an emphasis upon the necessity of a campaign of education, especially for the people of the United States, with a view to securing a more correct comprehension of the interest of the United States in international questions and an understanding of how or why our own industrial prosperity is dependent upon a more internationally minded viewpoint.

The task of reviewing a book of this character is comparatively simple. The authors evidently have set as their task a description of the more important phases of the European industrial and financial problems as they are related to the United States. Not only has there been a most excellent selection of material, discussed in very brief compass, but, what is of equal importance, the volume is written in an interesting manner. It has had a large sale since its publication, as it deserves, strictly on its merits as an interesting description of the important European economic problems.

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NEW BOOKS

ADLER, C. *Jacob Henry Schiff, a biographical sketch*. (New York: American Jewish Committee. 1921. Pp. 69.)

ANDERSON, B. M. *Germany and Russia, a chapter of uncertainties*. Chase Economic Bull., vol. II, no. 2. (New York: Chase National Bank. 1922. Pp. 40.)

BACHI, R. *L'Italia economica nel 1920. Annuario della vita commerciale, industriale, agraria, bancaria, finanziaria e della politica economica*. (Città di Castello: Casa Tip.-Ed. S. Lapi. 1921. Pp. xii, 512.)

This volume, the twelfth in its series, deals intensively with economic conditions and changes in 1920, and broadly with those of 1921. Part I has to do with conditions, part II with control, organization, policy. Trade, prices, banking and the other usual economic categories are prominent, but in part II special topics like municipal economic activities, coöperation and housing also appear. One appendix considers the developments of 1921; another, considerably longer, the work of Professor Del Vecchio, deals with the economic crisis which overtook Julian Venetia, Fiume and Zara, when, after the war, these regions were detached from their old contexts.

R. F. FOERSTER.

BARTON, R. F. *Ifugao economics*. Publications in American archaeology and ethnology, vol. XV, no. 5. (Berkeley: University of California Press. 1922. \$1.)

BIDOU, H. and others. *Les conséquences de la Guerre*. (Paris: Alcan. 1921. Pp. 189. 7 fr.)

This is a collection of lectures given in 1919 by eminent public men in France on the military, financial, and economic results of the war. Although much has happened since 1919, certain basic facts and national feelings of that time have still to be taken into account. There is a very interesting lecture on the French view of the Near East by General Mallerre; another on the economic consequences of the war by M. Liesse; and one on the financial consequences by M. Guebhard. The other lectures are by MM. Bidou, Tardieu, and Tessier.

R. R. WHITEHEAD.

BOGARDUS, E. S. *A history of social thought*. (Los Angeles: University of Southern California Press. 1922. Pp. 510. \$3.50.)

BOURDEAUX, J. *Tolstoi, Lénine et la Revolution russe*. La Bibliothèque d'Histoire Contemporaine, vol. I. (Paris: Alcan. 1922. 8 fr.)

BURGER, O. *Venezuela. Ein Führer durch das Land und seine Wirtschaft*. (Leipzig: Dieterich'sche Verlagsbuchhandlung. 1922. Pp. vii, 272. 50 M.)

DASKALJUK, O. W. *Die Ukraine als Arbeitsfeld für Deutsche und deutsches Kapital*. (Berlin: Georg Stilke. 1922. Pp. 80. 15 M.)

DINGLE, E., editor. *The new atlas and commercial gazetteer of China*. Compiled by the Far Eastern Geographical Establishment. (New York: Dutton. 1922. \$160.)

DRAHN, E. *Friedrich Engels. Ein Lebensbild zu seinem 100 Geburtstage*. (Vienna: Verlag Arbeiter-Buchhandlung. 1 p. 51.)

- DUBOSCQ, A. *L'évolution de la Chine, politique et tendances (1911-1921)*. (Paris: Ed. Bossard. Pp. 190. 9 fr.)
- EARLE, E. M. *An outline of the economic development of the United States*. (New York: Am. Inst. of Banking, 15 W. 37th St. 1921. Pp. 44. 75c.)
- VON ENGELN, O. D. *Inheriting the earth, or the geographical factor in national development*. (New York: Macmillan. 1922. Pp. xvi, 379. \$2.)
- FISKE, B. A. *Invention, the master-key to progress*. (New York: Dutton. 1921. Pp. ix, 356. \$4.)
- GAMBLE, S. D. and BURGESS, J. S. *Peking, a social survey, conducted under the auspices of the Princeton University Center in China and the Peking Young Men's Christian Association*. (New York: Doran. 1921. Pp. 538. \$5.)

In some centuries of books on China there has hitherto been not one exhibiting on a basis of intelligent, statistical inquiry and with fair approach to comprehensiveness the facts fundamental to Chinese life, such as family earnings and expenditure, the prevalence of disease, rates of marriage, birth and death, the activity of government as it affects the moral and material condition of the masses. The greater completeness and exactness of the present work has resulted partly from the commendable efforts and intelligence of a small number of foreigners, but it is also itself a product of the profound revolution now fairly begun under the vigorous stimulation of foreign aggression as well as foreign instruction and destined to alter the whole life of China. The foreigners could not have done this work without the coöperation of Chinese awake to the value of such an inquiry. The book is full of suggestions of the probable depth and scope of that revolution, as it has begun to touch the penal system, the position of women, the ancient literature, the monopoly of the guilds, the power of the bureaucracy now threatened by the mercantile class.

The opinion that poor relief, while not properly organized, is tolerably sufficient in the amount of money available (pp. 303-4) will surprise those readers who have been taught that the Chinese are indifferent to the sufferings of the poor. Another opinion common among foreigners, that smallpox is not a serious malady among Chinese, is set aside by a report that in 1917 fifty-four per cent of such cases were fatal. The vital statistics here reported are admittedly questionable, though their apparent abnormality may be due to the unrepresentative character of the population of the capital. In 1917 the police reports indicated a birth rate of 11.8 per 1000 persons, 32.6 per 1000 females, 51.1 per 1000 females of 16-50 years of age (p. 31). This is less than the rate in European as well as in other Asiatic countries. The births per 1000 females are less than the births per 1000 persons of *both sexes* in Japan, India, Ceylon, the Philippines and Korea, as well as among the Chinese in Formosa and in the Japanese leased territory of Kwantung—although the women in Peking above thirty seem to be practically all married. The Peking death rate is reported (p. 116) as ranging in a series of five years from 18.8 to 25.8 per 1000. These ratios are not far from those officially reported for Japan (20), India (28.7), and Korea (18 or 19). It is evidently improbable that the death rate either in Peking or among any of the other oriental populations just mentioned should have been even

for one year about equal to the average in England 1891-1900 (18.2) or that the Peking maximum for five years should have been less than 26, which is not far from the average of Italy, Bavaria and Saxony in the years 1891-1900 (24.2, 25.4 and 24 respectively), and it seems probable that in Peking as well as the other cases the returns are at fault. It is one of the merits of this extremely valuable work that difficulties of this class have been met with caution and discernment.

A. P. WINSTON.

GUEST, G. *An introduction to English rural history.* (London: Workers' Educational Assoc. 1920. Pp. 68.)

GREGORY, W. M. and GUITTEAU, W. B. *History and geography of Ohio.* (Boston: Ginn. 1922. Pp. vi, 282.)

HALL, H. *Classified list of agrarian surveys in the Public Record Office.* (London: London School of Economics. 1922. Pp. 23.)

HAUGER, A. *Zur römischen Landwirtschaft und Haustierzucht.* (Hanover: Schaper. 1921. 29 M.)

HEATON, H. *Modern economic history. With special reference to Australia.* (Adelaide, Australia: Workers' Educational Assoc. 1921. Pp. 288.)

HEITLAND, W. E. *Agricola: a study of agriculture and rustic life in the Greco-Roman world from the point of view of labour.* (Cambridge, England: University Press. (New York: Macmillan. 1921. Pp. x, 492. 47s. 6d. \$16.)

HERSENT, G. and others. *L'outillage économique de la France.* (Paris: Alcan. 1921. Pp. 237. 8 fr.)

A collection of lectures on the resources of France: M. Colson advocates a more rational extension of the railroad system; M. Hersent urges the development of larger docks; M. Colson writes of the possibilities of the development of water power for which capital is at present lacking; M. Barety tells of *Le Tourisme* under which he sums up all those attractions which cause such a large number of American dollars to be spent in France that they form a substantial item helping to reestablish a better exchange; M. Métayer tells of the mineral and metallurgical resources of the country.

R. R. WHITEHEAD.

JENNINGS, W. W. *The American embargo, 1807-1809. With particular reference to its effect on industry.* (Iowa City: University of Iowa. 1921. Pp. 242. \$1.50.)

This intensive study of the period of the embargo is one of a series in the University of Iowa Studies in the Social Sciences (vol. VIII, no. 1). Chapters are devoted to American Commerce, 1798-1807, Foreign Restrictions on Commerce, The Embargo in Legislation, Congressional Debate and Diplomacy, The Economic Effects of the Embargo on the Warring Nations with Particular Reference to England and Her Colonies, Attitude of the United States towards the Embargo, Growing Opposition to the Embargo; also chapters on the effect of the embargo on manufactures, commerce and agriculture. A valuable contribution of this work is the special study made of the economic effects of this legislation. The author draws the conclusions which many writers have reached with-

out investigation that "the demand for American manufactured goods increased, for, with the curtailment of foreign trade, many of our citizens had to buy at home or do without." Professor Jennings' research shows that the effects on foreign trade were most disastrous. Shipbuilding declined; many unemployed marines migrated to Canada or took service under a foreign flag; and those who remained at home faced unemployment and of these some merely "swelled our charity or prison population." Farmers likewise suffered greatly, particularly those who had been wont to look to the foreign market to consume a part of their surplus. Prices of many of the staples declined greatly during this period, debts of the farmers increased, mortgaging of property increased, and with it the inevitable foreclosures. The author has drawn abundantly upon the literature of the time to prove his various propositions. The volume is well documented; it is provided with an ample bibliography and with a very good index.

ISAAC LIPPINCOTT.

KÜHNERT, H. *Entwicklungsgeschichte der Wirtschaft in Thüringen. Ein volkstümlich-soziologischer Ueberblick. Part I.* (Jena: Jenaer Volksbuchhandlung. 1922. Pp. 45. 10.80 M.)

LANIER, H. W. *A century of banking in New York, 1822-1922.* (New York: Doran. 1922. Pp. x, 335. \$5.)

LEHFELDT, R. A. *The national resources of South Africa.* (Johannesburg: University of Witwatersrand. London: Longmans, Green & Co. 1922. Pp. 79.)

LICHTNER, O. C. *The history of business depressions; a vivid portrayal of periods of economic adversity from the beginning of commerce to the present time.* (New York: Northeastern Press, 119 Nassau St. 1922. Pp. 454. \$4.)

MACKAIL, J. W. *The life of William Morris.* New impression, two vols. in one. (New York: Longmans, Green & Co. 1922. \$3.50.)

MACMILLAN, A., compiler. *The red book of the West Indies: historical and descriptive, commercial and industrial facts, figures, and resources.* (London: W. H. & L. Collingridge. 1922. Pp. 424.)

MAUER, H. *Die private Kapitalanlage in Preussen während des 18. Jahrhunderts.* (Mannheim: Bensheimer. 1921. 20 M.)

MEEKER, E. *Seventy years of progress in Washington.* (Seattle, Wash.: Author. 1921. Pp. ix, 381.)

MORTARA, G. *Prospettive economiche 1922.* (Città di Castello: Soc. Tip. "Leonardo da Vinci." 1922. Pp. xx, 384.)

By far the larger portion of the treatment of each topic considered in this volume is concerned with conditions, circumstances and developments of the past, generally of 1921. In a very few lines, sometimes as few as four, is given the author's outlook, or expectation of developments, for 1922; analysis or argument does not appear here, and prediction is disclaimed. As it is to these lines that most persons who consult the book will turn, the book appropriately takes its title from them. The chapters take up such topics as grain, wine, silk, cotton, wool, iron, electrical energy, transportation by land and sea, public finance, money, labor.

R. F. FOERSTER.

MOSCHELES, J. *Wirtschaftsgeographie der tschechoslowakischen Republik*. (Vienna: A. Haase. 1921. Pp. 162. 43.70 M.)

MUELLER, H. R. *The Whig party in Pennsylvania*. Columbia University studies in history, economics and public law, vol. CI, no. 2. (New York: Longmans, Green & Co. 1922. Pp. 271. \$2.75.)

Contains a chapter on Texas and the Tariff, 1844-1846.

MUIR, R. *A short history of the British Commonwealth*. Vol. I, *The islands and the first empire (to 1783)*. (Yonkers-on-Hudson, N. Y.: World Book Co. 1922. Pp. xvi, 824. \$8.)

ODATE, G. *Japan's financial relations with the United States*. Columbia University studies in history, economics, and public law, vol. XCVIII, no. 2. (New York: Longmans, Green & Co. 1922. Pp. 136. \$1.25.)

PARKER, E. H. *China, her history, diplomacy and commerce from the earliest times to the establishment of the Chinese Republic in 1917*. (New York: Dutton. 1922. \$5.)

PAULUS, N. *Indulgences as a social factor in the middle ages*. Trans. by J. E. Ross. (New York: The Devin-Adair Co. 1922. Pp. 121.)

PERCHOT, J. *Vers le libre relèvement économique et financier de la France. Discours prononcés au Sénat, 1916-1920*. (Paris: Alcan. 1921. Pp. 330. 6.75 fr.)

PECK, A. S. *Industrial and commercial South America*. (New York: Dutton. 1922. \$5.)

RADFORD, A. *Industrial and commercial geography*. (London: Collins. 1922. 3s. 6d.)

REIMES, W. *Ein Gang durch die Wirtschaftsgeschichte*. (Stuttgart: Dietz. 1922. 24 M.)

REW, H. *The story of the Agricultural Club, 1818-1921*. (London: King. 1922. Pp. xv, 205. 10s. 6d.)

ST. LEWINSKI, J. *The founders of political economy*. (London: King. 1922. Pp. 173. 6s. 6d.)

VON SCHEVEN, W. *Die Wechselwirkung zwischen Staats- und Wirtschaftspolitik in den schweizerisch-französischen Beziehungen der Restaurationszeit*. (Bern: Ernst Bircher. 1921. Pp. 95. 5 fr.)

SCHIFF, M. L. *Europe in March, 1922*. (New York: Author, 52 William St. 1922. Pp. 41.)

SCHLESINGER, A. M. *New viewpoints in American history*. (New York: Macmillan. 1922. Pp. x, 299.)

The author is professor of history in the University of Iowa. Contains chapters on the Influence of Immigration on American History, Economic Influences, Radicalism and Conservatism, and Economic Aspects of the Movement for the Constitution.

SCHMIDT, F. A. *Die Volkswirtschaft im neuen Deutschland. Betrachtungen zur wirtschaftlichen Lage nach dem Londoner Ultimatum*. (Munich: Verlag d. Polit. Zeitfragen, F. A. Pfeiffer & Co. 1921. Pp. 64. 10 M.)

- STEINER, B. C. *Life of Roger Brooke Taney, Chief Justice of the United States Supreme Court.* (Baltimore: Williams & Wilkins Co. 1922.)
- VON STERN, E. *Sozial-wirtschaftliche Bewegungen und Theorien in der Antike.* (Halle: Niemeyer. 1921. 4 M.)
- STONE, G. *A history of labour.* (New York: Macmillan. 1922. Pp. 416.)
- VANDERLIP, F. A. *What next in Europe?* (New York: Harcourt, Brace & Co. 1922. Pp. vi, 308. \$2.)
- DEL VILLAR, E. H. *El valor geográfico de España.* (Madrid: Sucesores de Rivadeneyra. 1921. Pp. 300.)
- WILLIAM, M. *The social interpretation of history.* (Long Island City, N. Y.: Sotery Pub. Co. 1922. \$3.)
- Accessions of manuscripts, broadsides, and British transcripts, July 1, 1920—December 31, 1921.* Library of Congress, Division of Manuscripts. (Washington: Gov. Prtg. Office, Library Branch. 1922. Pp. 53.)
- Blue book of the state of Illinois, 1921-1922.* (Springfield, Ill.: L. L. Emerson, secretary of state. 1921. Pp. xi, 935.)
- Business prospects year book, 1922.* Edited by D. W. LLOYD and A. P. BARNETT. (Cardiff, England: Business Statistics Co. 1922. Pp. 373. 10s.)
- The city of New York. A few briefly stated facts of an economic, historical, and descriptive character about the city of New York.* (New York: Chamber of Commerce, 65 Liberty St. 1922. Pp. 44.)
- Commercial situation in Portuguese East Africa, October, 1921.* (London: King. 1922. 6d.)
- Commercial situation at Siam, September, 1921.* (London: King. 1922. 3d.)
- Economic and financial conditions in Germany to March, 1922.* Report by the Commercial Secretary to H. M. Embassy, Berlin. (London: King. 1922. 5s.)
- Economic and financial conditions in Paraguay, September, 1921.* (London: King. 1922. 1s. 3d.)
- Economic and financial conditions in Uruguay, November, 1921.* (London: King. 1922. 1s.)
- The greatest highway in the world; historical, industrial and descriptive information of the towns, cities and country passed through between New York and Chicago via the New York Central lines; based on the Encyclopaedia Britannica.* (New York: N. Y. Central Railroad Co., Publicity Dept. 1921. Pp. iii, 130.)
- The Russian states: a description of the various political units existing on Russian territory.* Compiled from material supplied by the British Trade Mission in Moscow. (London: King. 1922. 9d.)
- Situation économique de la Belgique, 2me semestre, 1921.* (Liege: Ministère des Affaires Etrangères. 1922. Pp. 122.)
- Venezuela en el centenario de su independencia 1811-1911.* Publicación

hecha de orden del CIUDADANO GENERAL JUAN VINCENTE GOMEZ. Vols. I and II. (Caracas: Tipografía Americana. 1922. Pp. xxii, 583; 593.)

Agriculture, Mining, Forestry, and Fisheries

The National Resources of South Africa. By R. A. LEHFELDT. (London: Longmans, Green & Company. 1922. Pp. 79.)

Since South Africa is famous for its production of diamonds in the rough, we may well expect to find something of the sort in a study of the income of that region made by a teacher in the infant University of the Witwatersrand—an infant still less than a year old. One is much surprised, then, to find the product not a rough stone but a polished gem of the first water. Too many of the works on the subject of income are characterized either by a labored and tiresome style or by a careless analysis of the problems involved. Professor Lehfeldt has accomplished the difficult task of presenting his subject in a pleasing, readable form; and he possesses such a good grasp of economic principles and has analyzed his problem so carefully that the reviewer has been able to detect surprisingly few flaws in the reasoning given.

The book is worth reading not only as an example of scientific analysis but also for the facts presented therein. Comparisons are made throughout with conditions in the United States, England, and Australia. The computation of the total income of South Africa is complicated by the fact that a large fraction of South African property is held abroad. The income of the average white inhabitant of South Africa is shown to be less than two thirds as great as that of the average inhabitant of the United States. There is, however, a striking difference between the average income of the whites and the average income of the whole population of South Africa, for four fifths of the inhabitants of this region are colored and the per capita income of this great majority of the inhabitants is estimated at the unbelievably small amount of £5½ per annum. South Africans must, then, be considered as economically much worse off than the people of the United States.

Mining, of course, plays a much more important and manufacturing a much less important rôle in South Africa than in the United States. That the foreign trade of the former is a matter of the first moment is evidenced by the fact that the value of exports equals half of the net value of goods produced—a proportion nearly ten times as great as that normally prevailing in the United States. Gold, diamonds, and wool are the leading exports. It will surprise most American readers to know that South Africa is a food importing rather than a food exporting region.

Despite the differences in average per capita income and the racial composition of the population, Professor Lehfeldt finds that in South

Africa, just as in England and the United States, wages and salaries account for about two thirds of the national income. He endorses the views previously set forth by Professor Bowley and by the present reviewer that it is not feasible to improve materially the condition of the wage-earning classes by any process of redistribution but that appreciable betterment can only be brought about by methods which will give greater per capita production.

Protectionism is apparently rampant in South Africa as well as in this country, but Professor Lehfeldt, like most economists, has little faith that this panacea, if put into operation, will accomplish as much good as harm.

This review may well close with the words of Premier J. C. Smuts, who writes the preface to the little volume—"The student of economics, the legislator, and the average citizen will read this book with profit, and I commend the author's views to the serious consideration of all."

WILLFORD I. KING.

NEW BOOKS

APOSTOL, P. and MICHELSON, A. *La lutte pour le pétrole et la Russie*. (Paris: Payot. 1922. Pp. 224.)

ARCHBALD, H. *The four-hour day in coal*. (New York: H. W. Wilson Co. 1922. Pp. xiii, 148. \$1.50.)

Eight compact chapters, entitled Grievances, Coal Mining, The Mine Foreman and His Problem, Time for the Miner, Amount of Work for the Miner, Record of Complaints in Illinois, Discouragements and the Lack of Thrift, and The Engineering Need, constitute this study of bituminous coal mining. The introductory note is by the Bureau of Industrial Research, and there are twenty-two charts and tables. Long experience as a mining engineer enables Mr. Archbald to analyze lucidly the problems of coal mining—its intermittent character, the technical difficulties of routing empty cars to avoid wasting the miners' time, the ineffectual struggles of poorly paid foremen against too much detail, all resulting in an average daily output of scarcely four tons instead of six or eight. The industry is speculatively overdeveloped, and some 100,000 miners too many are kept on hand (idle piece-workers costing the mines nothing) thus reducing the opportunities for work for all. When miners actually mine coal during only a quarter, perhaps, of possible working hours in a year, it is imperative that the price paid per ton be high.

The book is written without bitterness, and offers no easy solution. No distinction is made between conditions in union and non-union mines, except in stating that the latter lack means of redress for grievances, such as the union mines obtain through adjustment boards and union contracts.

VON BRAUN, E. *Die Hebung der landwirtschaftlichen Produktion als Grundlage des deutschen Wiederaufbaus*. Finanz- und volkswirtschaftliche Zeitfragen, Heft 78. (Stuttgart: Ferdinand Enke. 1921. Pp. 16. 3 M.)

- BURCHARD, E. F. *Cement in 1920. Mineral resources of the United States, 1920.* Part II. Issued by the Geological Survey. (Washington: Gov. Prtg. Office, Supt. Docs. 1922.)
- COPLAND, D. B. *Wheat production in New Zealand. A study in the economics of New Zealand agriculture.* (Melbourne: Whitcombe & Tombs. 1922. Pp. xviii, 311.)
- CRONSHAW, H. B. *Silver ores.* Imperial Institute monographs on mineral resources with special reference to the British Empire. (London: John Murray. 1921. Pp. ix, 152. 6s.)
- DAY, J. D. *Cotton industry of the Pacific-Southwest.* (Los Angeles, Calif.: First National Bank, Research Dept. 1922.)
- JERMSTAD, A. *Das Opium. Seine Kultur und Verwertung im Handel.* Chemischtechnische Bibliothek, 368. Bd. (Vienna: A. Hartleben. 1921. Pp. 208. 24 M.)
- JEVONS, H. S. *The economics of tenancy law and state management.* (Allahabad, India: University Press. 1921. Pp. 114.)
- JILLSON, W. R. *The coal industry in Kentucky; an historical sketch.* (Frankfort, Ky.: Kentucky Geological Survey. 1922. Pp. 87. \$2.)
- . *The conservation of natural gas in Kentucky.* (Louisville, Ky.: J. P. Morton & Co. 1922. Pp. 152.)
- KUNHARDT, J. C. G. *An analysis of the statistical position of rubber.* (London: Rickinson & Son. 1922. Pp. 44. 2s. 6d.)
- MEYER, E. *Agricultural and live stock conditions and finance. A report to the President.* (Washington: War Finance Corporation. 1922. Pp. 12.)
- MITZAKIS, M. *Oil encyclopedia.* (London: Chapman & Hall. 1922. 21s.)
- MORATH, R. *Der deutsche Kalibergbau.* (Nieder-Ramstadt: Carl Malcomes. 1921. Pp. 65. 11.60 M.)
- ORWIN, C. S. *Farming costs.* New edition. (Oxford, Eng.: Clarendon Press. 1921. Pp. 141.)
- OXHOLM, A. H. *Forest resources, lumber industry and lumber export trade of Norway.* Bureau of Foreign and Domestic Commerce, Special agents' series 211. (Washington: Gov. Prtg. Office, Supt. Docs. 1922. 30c.)
- PAGE, T. W. *Suggested reclassification and revision of sections of the tariff relating to agricultural products and provisions.* (Washington: Gov. Prtg. Office, Supt. Docs. 1921. Pp. ii, 226.)
- PEEK, G. N. and JOHNSON, H. S. *Equality for agriculture.* (Moline, Ill. Howard W. Harrington, Moline Plow Co. 1922. Pp. 32. 25c.)
- PENZER, N. M. *The tin resources of the British Empire.* Raw materials of industry. (London: William Rider & Son. 1921. Pp. x, 358. 15s.)
- PFEIFFER, K. C. T. *Geschichte des Zuckerrübenbaues und der Rübenzucker-industrie in der Rheinprovinz.* (Leipzig: Kurt Shroeder Verlag. 1922.)
- REDWOOD, B. *Petroleum: a treatise on the geographical distribution and geological occurrence of petroleum and natural gas, etc.* Three vols. (London: Charles Griffin & Co. 1922. Pp. 1353. 105s.)

- SHEPARD, C. W. *Uncle Sam's free farms and ranches.* (Colony, Wyo.: Author. 1921. Pp. 18.)
- SKALWEIT, A. *Die Pacht in ihrer volkswirtschaftlichen Bedeutung.* (Leipzig: Kurt Schroeder Verlag. 1922.)
- STEBBINS, E. P. *The forests of India.* Two vols. Vol. I. (London: John Lane. 1922. 42s.)
- WARD, J. S. M. *Cotton and wool. Raw materials of industry.* (London: William Rider & Son. 1921. Pp. 270. 10s. 6d.)
- Agriculture. Provision of allotments by local authorities in Great Britain.* Report of Departmental Committee. (London: King. 1922. 6d.)
- Annual wool review, 1921. Domestic wool clip, imports of wool and manufactures and other statistical tables.* (Boston: National Assoc. of Wool Manufacturers. 1922. Pp. 220. 50c.)
Issued as a supplement to the January Bulletin.
- Deutsches Baumwollhandbuch. Jährliches Merk- und Nachschlagebuch für die Interessenten des Baumwollhandels und der Baumwollindustrie.* (Bremen: Debeha-Verlag. 1921. Pp. viii, 228, 107.)
- Farm census of the United States, 1919 and 1920. United States totals with comparative figures from the census of 1910.* (Washington: Gov. Prtg. Office, Supt. Docs. 1922. Pp. 15.)
- Fur production of Canada, season 1920-1921.* (Ottawa: Dominion Bureau of Statistics, Fur Branch. 1922. Pp. 10.)
- Fisheries of the Far Eastern Republic.* Published by the Special Delegation of the Far Eastern Republic to the United States of America. (Washington: Delegation. 1922. Pp. 35.)
- Irrigation, 1919 and 1920. Fourteenth census of the United States.* (Washington: Gov. Prtg. Office, Supt. Docs. 1922. Pp. 38.)
- Mineral resources of the United States, 1918. Part I—Metals.* By the United States Geological Survey. (Washington: Gov. Prtg. Office, Supt. Docs. 1921. Pp. 149A, 1096. \$1.)
- Petroleum.* Prepared jointly by H. M. Petroleum Department with the coöperation of H. B. CRONSHAW. Imperial Institute monographs on mineral resources with special reference to the British Empire. (London: John Murray. 1921. Pp. x, 110. 5s.)
- Production de la soie en France et à l'étranger. Récoltes de 1916, 1917, 1918 et 1919.* (Lyon: Union des Marchands de Soie de Lyon. 1921. Pp. 48.)
- Reports on jute and silk.* Imperial Institute Indian trade enquiry. (London: John Murray. 1921. Pp. ix, 90. 5s.)
- Statistical report of the California Board of Agriculture for the year 1920.* (Sacramento, Calif.: Board of Agri. 1921. Pp. xiv, 375.)
- Summary report of investigations made by the Mines Branch during 1920.* (Ottawa, Canada: Dept. of Mines. 1922. Pp. 87.)
- Technical survey of agricultural questions.* International Labour Conference, third session. (Geneva: International Labour Office. 1921. Pp. x, 623.)

Wheat supplies. First report of the Royal Commission. (London: H. M.'s Stationery Office. 1921. Pp. vi, 95. 5s.)

Manufacturing Industries

NEW BOOKS

GARSDIE, A. H., compiler. *Standard cotton mill practice and equipment, 1921.* (Boston: National Assoc. Cotton Manufacturers, 45 Milk St. 1921. Pp. 180.)

GREW, W. F. *The cycle industry. Its origin, history and latest developments.* (London and New York: Pitman. 1921. Pp. x, 123. 3s.)

MICHEL, H. *Die hausindustrielle Weberei Deutschlands. Entwicklung, Lage und Zukunft.* (Jena: Fischer. 1921. Pp. vii, 144. 20 M.)

REYNEAU, P. O. and SEELYE, H. P. *Economics of electrical distribution.* (New York: McGraw-Hill. 1922. Pp. viii, 209. \$2.50.)

SIMON, A. L. *Wine and the wine trade.* (New York: Pitman. 1921. Pp. xi, 110. \$1.)

Arkansas marketing and industrial guide. (Little Rock, Ark.: State Bureau of Markets. 1921. Pp. 215.)

Directory of Massachusetts manufacturers. Issued under the editorial supervision of the Associated Industries of Massachusetts. (Boston: Sampson & Murdock Co., 377 Broadway. 1922. Pp. 674. \$6.)

Facts and figures of the automobile industry, 1922. (New York: National Automobile Chamber of Commerce, 366 Madison Ave. 1922. Pp. 96.)

The story of flour. (Minneapolis, Minn.: Pillsbury Flour Mills Co. 1922. Pp. 28.)

Twentieth annual meeting of the National Lumber Manufacturers Association, and fourth American lumber congress. (Washington: Wilson Compton, Secretary, Southern Bldg. 1922. Pp. 100.)

Year book, 1922. (Chicago: Commonwealth Edison Co. 1922. Pp. 32.)

Transportation and Communication

NEW BOOKS

DUNCAN, C. S. *Getting railroad facts straight—about wages; about maintenance; about valuation.* (New York: Assoc. of Railway Executives, 61 Broadway. 1922. Pp. 51.)

An answer to Frank J. Warne, witness for the railroad unions before the United States Senate Committee on Interstate Commerce.

ELLIS, W., compiler. *A cumulative edition of the Interstate Commerce act.* Two vols. (Washington: Cumulative Services. 1921. \$14.)

HUNGERFORD, E. *Our railroads tomorrow.* (New York: Century. 1922. Pp. 332. \$2.50.)

HUNTINGTON, W. C. *Analysis of French railroad situation.* Department of Commerce, trade information bulletin no. 17. (Washington: Supt. Docs. 1922. Pp. 24. 5c.)

KENNAN, G. *G. E. Harriman, a biography*. Two vols. (Boston: Houghton Mifflin. 1922. Pp. xvi, 421; 421.)

In addition to biographical data, this work is of permanent value for chapters on railroad development and finance. Describes in detail Harriman's connection with the Illinois Central, Union Pacific, Southern Pacific, Kansas City Southern, Erie and other railways. Several chapters are devoted to the struggle to obtain possession of the Chicago, Burlington and Quincy. In chapter 27, the author again returns to the criticisms of Harriman made by Professor Ripley in the *North American Review* in 1916 and answers them seriatim.

LANGENBECK, W. *Geschichte des Norddeutschen Lloyd*. (Leipzig: Paul Schraepfer. 1921. Pp. 122. 14 M.)

LEE, E. *What is ahead for our railroads?* Address before the Transportation Club, New York City, May 15, 1922. (Philadelphia: Pennsylvania Railroad System. 1922.)

MACELWEE, R. S. and RITTER, A. H. *Economic aspects of the Great Lakes-St. Lawrence Ship Canal*. (New York: Ronald. 1921. Pp. 291. \$4.)

Much interesting information has been brought together in this volume (which is referred to in the preface as a report) concerning a proposed Lakes to Ocean Ship Canal. Attention is given to the character of water transportation needed for the commerce of the Northwest; to the navigation conditions on the St. Lawrence route; to a comparison of the St. Lawrence with other ocean routes; to a comparison of navigation facilities on the Great Lakes with those of ocean ports; to the depths required for the accommodation of vessels engaged in maritime trade; to the type and sizes of vessels which carry the world's commerce, including a study of vessels passing through the Panama Canal between July 1, 1919, and June 30, 1920.

There is a discussion of the cost of transportation between Upper Lake ports and Liverpool; of the areas commercially tributary to the Great Lakes-St. Lawrence waterway; of production of the tributary area; of return loads; of the commerce of the Great Lakes; of the volume of commerce which would be affected by the proposed waterway; of the possible development of shipbuilding on the Great Lakes and the possibilities of power development in connection with the waterway. The volume contains many interesting tables, charts, and maps concerning the production and possible traffic of the Great Lakes region.

The authors state (preface, p. 3) that "prior to making this investigation, they, like many others, had formed an immature judgment that ocean vessels on this route could not compete with existing routes serving the Northwest"; that a "study of the factors affecting the costs and advantages of the various available routes and methods of transportation has served to dispel the impressions derived largely from reports submitted many years ago when the conditions and costs of transportation, as well as the needs of the vast territory served by the Great Lakes, were very different from what they are at the present time."

They contend (p. 53) that the elimination of excessive terminal costs and the avoidance of losses sustained by American shippers through inability to carry out their contracts will alone result in annual savings equal to the total cost of the proposed waterway. Again (p. 290) it is

claimed that "the saving on grain will amount to from 8 to 10 cents a bushel" and that "this saving will affect not only the grain which actually moves for export but practically all that produced within the area tributary to the Great Lakes," that "this saving will amount annually to approximately the entire cost of the improvement required to admit ocean vessels into the Lakes; also (p. 291) that the water-power development will "afford a revenue which will maintain the improvement and amortize the full cost within a reasonable period." It is maintained that the "railroads cannot afford to provide the excess equipment and the excess facilities at terminals to meet the heavy traffic burdens during crop-moving periods." But it is stated (p. 31) that "the opening of the Great Lakes to ocean vessels would provide a dependable outlet for the products of our chief surplus-producing areas and would decrease by fully 50 per cent the average rail haul to and from ship side"; that "it would constitute an effective regulator of rail rates and traffic."

No suggestions are made as to the mode of financing the project. It is not clear that it will be to the interest of the region bordering on the Great Lakes to finance the improvement, for if it is to cheapen the cost of transportation of grain materially this region might suffer from the competition of the far Northwest. The building of railroads in the Mississippi valley in the sixties and seventies lowered the value of Eastern farms, and seriously affected English farmers and the peasantry of Western Europe. If the interests not normally tributary to the area affected are to finance the project, it will be necessary to show that the investment will yield an adequate return; if it is expected that the government will subsidize the improvement it will be necessary to consider the obligation already assumed under the Transportation act of 1920, by which freight rates are to be fixed so as to give an adequate return to carriers. The plan suggested by the authors that the new waterway would provide "an effective regulator of rail rates," would appear to belong to that period of our transportation development when dependence was placed on competition rather than on government regulation of rates.

There does not appear to be sufficient evidence presented in the volume to warrant the conclusions the authors have reached. There are no facts concerning recent estimates of the cost of the project. Indeed, it is stated (p. 7) that "study of the engineering features of the proposed improvement is in progress."

C. O. RUGGLES.

MCINTYRE, L. E. *Preliminary topical outline of the economics of highway transport.* (Washington: Highway and Highway Transport Education Committee, Willard Bldg. 1922. Pp. 59. 25c.)

PRATT, E. A. *British railways and the Great War.* In ten parts. (London: Selwyn and Blount. 1921. 3s. 6d. each.)

ROCHELEAU, W. F. *Transportation.* The great American industries series, fourth book. (Chicago: A. Flanagan Co. 1922. Pp. v, 275.)

Index-digest of decisions of the United States Railroad Labor Board. Compiled by Bureau of Information of the Southeastern Railways. (Washington: Railway Accounting Officers Assoc., 116 Woodward Bldg. 1922. Pp. 327. 50c.)

International and Great Northern Railway: position under the reorganization plan of June 1, 1922. (New York: Wood, Struthers & Co. Pp. 19.)

Rates of freight in the New Zealand trade. Report of the Imperial Shipping Committee. (London: H. M.'s Stationery Office. 1921. Pp. 23. 6d.)

Record of American and foreign shipping. (New York: American Bureau of Shipping. 1922. Pp. 1600.)

Statistics on the automobile, motor truck, motor cycle, 1922. (Des Moines, Ia.: Motor List Co. 1922. Pp. 32.)

What ails business? Catechism on the sources of buying power and a way to restore national prosperity through the resumption of railway purchases. (Chicago: Arthur Wyman, 1420 McCormick Bldg. 1922. Pp. 24.)

Trade, Commerce, and Commercial Crises

NEW BOOKS

ALEXANDER, J. S. *Why we must have foreign trade.* (New York: National Bank of Commerce. 1922. Pp. 23.)

COOPER, C. S. *Foreign trade markets and methods.* (New York: Appleton. 1922. Pp. xv, 440. \$3.50.)

The appearance of another book by a writer whose opportunities to come in contact with the realities of foreign trade have been unusual, should arouse interest in the minds of students who have been searching in vain for a work upon foreign trade which would present a more thorough analysis of one or more of its phases than has hitherto appeared. According to Mr. Cooper's statement, an attempt is made to present somewhat specifically the "how and where" of foreign trade. Over one half of the book is devoted to chapters upon the "how" of export trade, the chapter headings such as Foreign Trade Requirements, Knowing the Export Business, Foreign Salesmanship as a Career, Export Advertising, Training for Foreign Correspondence, Literature and Study Courses for Foreign Trade Representatives, American Shipping, Marine Insurance, Cables, Financing Foreign Trade, Definitions of Foreign Trade Terms, indicating in general the type of material included and the sequence of thought, if there be any definite logic in the arrangement. The latter part of the work contains discussions of actual and potential markets for American goods, comprising mainly a series of running comments derived from travel and experiences of the author.

The volume is written in popular style and quotations are abundant; but, as a whole, the result is superficial, though interesting. The charge of superficiality is supported as respects the "how" of foreign trade by the fact that export organization is given only five or six pages, while there is practically no discussion of the export department, types of export departments and their relationships to other activities of the business. Export policies necessary for the conduct of any business are hardly touched upon. No mention is made of methods of management and control of sales operations, a weakness which is not confined to Mr. Cooper's book and is probably the result of the general viewpoint of those writing for the American business man upon foreign trade. In short, a book upon the "how" of foreign trade should take the viewpoint of the private business enterprise. The conduct of that private enterprise is deter-

mined largely by external conditions; nevertheless, within the limitations imposed by external conditions lies the whole field for individual management. The reviewer agrees wholeheartedly with the statement made by the author that "world markets must be won by men prepared in the new school of business, men whose geographical knowledge of and grasp of world politics are equal to their knowledge of particular lines of trade," but he would add that the men who are to win must have not only all the broad knowledge of external conditions and the knowledge of their trade, but also knowledge of the broader business principles upon which all selling is conducted.

HARRY R. TOSDAL.

CRAIN, G. D., JR. *Market data book and directory of class, trade and technical publications*. Second edition. (Chicago: Author, 537 South Dearborn St. 1922. Pp. 456.)

GRÜNFELD, E. *Die deutsche Aussenhandels-Kontrolle*. (Leipzig: Kurt Schroeder Verlag. 1922. Pp. viii, 100. 20 M.)

HENDERSON, H. D. *The Cotton Control Board*. (Oxford: Clarendon Press. 1922. Pp. 74.)

LAVINGTON, F. *The trade cycle. An account of the causes producing rhythmical changes in the activity of business*. (London: King. 1922. Pp. 113. 3s. 6d.)

LIGHTNER, O. C. *The history of business depressions*. (New York: Northeastern Press, 119 Nassau St. 1922. \$4.)

MOBERT, P. *Einführung in das Studium der Konjunktur*. (Leipzig: G. A. Gloeckner. 1921. Pp. 226. 40 M.)

NEWMAN, A. J. *The commercial industries; a syllabus with bibliographies, references and study outline*. (Lawrence, Kan.: Dept. of Journalism Press, Univ. of Kansas. 1921. \$1.)

SMITH, J. G. *Organized produce markets*. (New York: Longmans, Green. 1922. Pp. ix, 238. \$4.)

TURPIN, H. *Le problème international du chômage*. (Paris: Giard. 1921. Pp. 116. 2 fr.)

An analysis of the causes of unemployment by one of the chief men in the coöperative glass-works at Albi. Like M. Bouniatian in *Les Crises Economiques*, the author attributes the crises which precede so much unemployment to the want of purchasing power on the part of the mass of the people, the growing wealth of the richer classes causing them to reinvest their surplus income as capital for the production of further commodities. The author's remedy is coöperative industry and production for use instead of for profit, and the elimination of the enormous waste caused by the present ways of distribution, of advertising, and of speculation. He advocates that the state should give the coöperative industries the right to issue paper currency on a certain percentage of their real possessions in goods, materials and factories, subject to state control, and he explains in what respect this differs from the issuing of assignats.

R. R. WHITEHEAD.

WINGEN, O. *Deutschlands künftige Stellung auf dem Weltmarkt*. (Nieder-Ramstadt: Carl Malcoms. 1921. Pp. 92. 15 M.)

- Annual statement of the foreign trade of Egypt during 1920.* Compiled by the Statistical Department, Cairo. (Cairo: Gov. Press. 1921. Pp. cxli, 299.)
- Annual statement of the trade and commerce of Saint Louis for 1921.* (St. Louis, Mo.: Merchants' Exchange. 1922. Pp. 217.)
- Chile and the United States, reciprocal resources.* (New York: Chile-American Assoc. 1921. Pp. 20.)
- Commerce de la Belgique avec les pays étrangers. Année 1920.* (Brussels: Ministère des Finances. 1921. Pp. 631.)
- Comercio exterior de la Republica de Colombia. Año de 1917.* (Bogota: Imprenta Nacional. 1921. Pp. xl, 388.)
- Commerce du Royaume de Bulgarie avec les pays étrangers. Importation, exportation, entrepôt et transit pendant les années 1913, 1914 et 1915.* (Sofia: Imprimerie de l'Etat. 1921. Pp. xvii, 586. 215 Lei.)
- Danmarks vareindførsel og -udførsel i aaret 1920. Udgivet af det Statistiske Departement.* (Copenhagen: Gyldendalske Boghandel, Nordisk Forlag. 1922. Pp. 259. 4 Kr.)
- Glassware trade. Final report by a subcommittee appointed by the Standing Committee on Trusts (Profiteering acts, 1919 and 1920).* (London: H. M.'s Stationery Office. 1921. Pp. 12. 2d.)
- Imported merchandise entered for consumption in United States, and duties collected thereon for calendar year 1921.* Annual report of foreign commerce and navigation for year ending 1921, table no. 9. (Washington: Supt. Docs. 1922. 10c.)
- Imports of merchandise into the United States, by articles and countries during the year ending June 30, 1913 and calendar years, 1918-1921.* Annual report on commerce and navigation for 1921, table no. 3. (Washington: Supt. Docs. 1922. 10c.)
- Latin American foreign trade in 1920; general survey.* (Washington: Supt. Docs. 1922.)
- Report on the grain trade of Canada, 1921.* (Ottawa: Dominion Bureau of Statistics, Internal Trade Branch. 1922. Pp. 153.)
- Report on iron and steel products. Cut nails, bolts and nuts, and horse nail trades (Profiteering acts, 1919 and 1920).* (London: H. M.'s Stationery Office. 1921. Pp. 12. 2d.)
- Republica Portuguesa. Comércio e navegacao. Anno de 1918.* (Lisbon: Imprensa Nacional. 1921. Pp. lxxxviii, 375.)
- Sea-borne trade of British India with the British Empire and foreign countries. Annual statement for the year ending March 31, 1920.* Vol. II, Abstract and detailed tables of the trade and shipping with each country. Fifty-fourth issue. (Calcutta: Supt. Gov. Prtg. 1921.)
- Trade of India in 1920-1921.* (Calcutta: Supt. Gov. Prtg. 1921. Pp. vi, 101. 12 annas.)
- Trade of the United Kingdom with foreign countries and British possessions, 1920. Annual statement.* Vol. II and III. (London: H. M.'s Stationery Office. 1921. Pp. iv, 849; iii, 586. 2£; 1£ 7s. 6d.)

Accounting, Business Methods, Investments and the Exchanges

Speculation. Its Sound Principles and Rules for Its Practice. By THOMAS TEMPLE HOYNE. (Chicago: Economics Feature Service, 1014 South Michigan Avenue. 1922. Pp. 279. \$2.50.)

This book is exactly what it purports to be, namely, a discussion of both the theory and the practice of organized speculation. The main strength of the book—and it has many strong points—is the author's familiarity with both the literature and the concrete facts of his subject. He writes of speculation as one "on the inside." Perhaps the chief weakness of the book, if it be a weakness, is the controversial element introduced by his long discussion of "Professor Fisher's mad dollar" and the rather long and caustic remarks about the farmers' coöperative grain-selling movement.

The material in the book is well organized, and is presented with literary finish. Part I (122 pages) treats of Speculation and Economic Fallacies. Price and value, speculation and gambling receive a very full treatment. "Speculative force," says the author, "is that tendency in man to act in regard to the production, acquisition or distribution of wealth in accordance with his speculative theorizing concerning the future, the attribute which above all others distinguishes him from the brute. It is the tendency to translate into advantageous action the result of using his brains." This speculative force, the author claims, expresses itself in exchange, and economics is primarily the science of exchange.

Speculation and gambling are contrasted. Gambling is an amusement; speculation is an occupation that confers a benefit upon society. (In another connection the author defines speculation as that kind of exchange which records the effort to increase the capital involved in making it without any necessity for labor or service.) In speculation both parties may profit or both lose, or one may profit and one may lose. In gambling there must be a loss for every gain. Speculation confers some economic benefit upon society, but gambling does not.

The author's discussion of price and value shows very keen analysis of this hard problem. Some quotations will suffice to give his views:

Value is an idea—an opinion—of what price should be. It is not the estimation of any one individual, but is the opinion of what that definite amount of money is—always unknown in most cases—which theoretically would be reached as a price by a compromise of all those persons qualified to judge in the particular instance, if they sat in joint consideration. Furthermore, presuming that such an imaginary conclave did actually gather and did set the value on any article in the world, that value would not, in all probability, remain fixed for any protracted period of time. It might change the very next instant. This is because value is merely opinion.

Value, then, as I understand and define the term, is the ideally true ratio for exchange between money and the thing valued. This true ratio is always a difficult relation to discover (perhaps in no case can it be certainly discovered), and individual opinion concerning what it is almost invariably, but not always, differs, no matter what the thing under consideration may be.

The quest for true values, true ratios of exchange, says the author, constitutes the fascination and romance of business. Differing opinions are reflected in bids and offers, finally culminating in price; and since opinions differ, prices fluctuate. Panaceas to prevent price fluctuation, therefore, the author characterizes as "Alice-in-Wonderland absurdities." In this category he places Fisher's "mad dollar" and the United States Grain Growers' wheat pool.

"To suggest," says the author, "that a money standard, or a monetary system, or a 'coöperative' plan can be devised that will practically eliminate changes in value, and hence changes in price, and thus put an end to speculation is no more nor less than to suggest a device for making the opinions of mankind agree and remain immutable. Such a suggestion contemplates extracting from human nature its dominant characteristic—difference of individual opinion concerning the unknown."

Part II of the book (126 pages) can be briefly summed up. It contains the rules of speculation—how to make an art of it. The author first gives the historic background of speculation, characterizing it as the natural and unconscious development by economic society of aids to better distribution. He considers the problem of distribution as greater than the problem of production.

An organized speculative market, a broad market, according to the author, is the nearest realization we can have of the bringing together and making identical in each exchange of the price and value of the articles dealt in, and this kind of a speculative market has added value by being liquid, and by stabilizing values. The rules for making a success of speculation, elaborated very fully, are reduced to these four: (1) Do not over-trade. (2) Always definitely fix the amount of profit sought in a speculation and the amount of loss that will be submitted to. (3) Think for yourself. (4) Do what you have decided to do.

Economists will doubtless find it interesting and wholesome to read what a "practical man" has to say about them and their field of work. In the opinion of the reviewer Mr. Hoyne has done notably constructive work in helping us forward towards a better statement of our theories of value and price.

JAMES E. BOYLE.

Cornell University.

The Stock Market. By S. S. HUEBNER. (New York: D. Appleton & Company. 1922. Pp. xv, 496. \$3.00.)

The Work of the Stock Exchange. By J. EDWARD MEEKER. (New York: The Ronald Press Company. 1922. Pp. xxiii, 633. \$5.00.)

A long time has elapsed since a publication of an authoritative character has been written upon the stock exchange. A large part of the literature in this field has been written by individuals possessing a gift of clever phrasing and one or two hackneyed ideas rather than any real understanding of the problem. As a result, in no field of economic literature have we had so much of writing and so little of value published. It is consequently refreshing to have the simultaneous appearance of two well organized and scholarly treatises on the stock exchange.

Professor S. S. Huebner's book, *The Stock Market*, was originally announced in the syllabus of the Investment Bankers' Association on *The Stock Exchange Business* in 1918. The excellent and comprehensive outline contained in the references to the chapter headings of Professor Huebner's book in this syllabus aroused our interest in its publication. The waiting has been worth while. The formulation and organization of the book represents seventeen years of teaching in the Wharton School of Commerce. Mature deliberation and careful organization is evidenced throughout the book.

The subject-matter of the book is divided into four parts: (1) Services Rendered by the Organized Stock Market; (2) Organization and Operation of the Market; (3) Factors Affecting Security Prices and Values; and (4) Legal Principles Governing the Stock Exchange Business. These divisions are subdivided into twenty-five well-balanced chapters which make the book well adapted for textbook purposes. On the other hand, though the book is developed along textbook lines, thus avoiding the inherent tediousness of a mere reference work, it is sufficient in its detail to be used as a handbook in actual practice. In all of the practices and regulations governing the stock exchange constitution and by-laws, the author has followed rather closely the order followed in these instruments.

Under the "Services rendered by the organized stock market" of Part I, the general economic functions of a stock market are explained. In this group of chapters, particular emphasis is given to the nature of the market, the discounting function and the function and defense of short selling. This is followed by a discussion of the regulations of the brokers' conduct and relation to the customer. This chapter is followed in turn by chapters explaining the character of options and arbitrating. Just why this order has been followed in the last four chapters of Part I, is not quite clear to the reviewer. Under the group of chapters in Part II, the technical character of the stock

exchange organization and the method by which securities are listed, bought or sold and transferred through the stock exchange by its members, are treated. Special chapters are also devoted to the short sale, the conversion of securities and privileged subscriptions of rights. This section of the book will without question be the most valuable for practical reference. Part III is devoted to the factors affecting security prices. As this is the least understood, yet the most important phase of the security market, the treatment in this section seems rather meager. Of course, a complete treatment of this aspect of the problem would engage an entire volume in itself and in order to confine the complete discussion of the stock market in one volume the author could well claim justification for this brief discussion. For example, no use has been made of Wesley Mitchell's extensive studies on Business Cycles or such studies as are now being carried on by the Harvard Bureau, though the latter has by no means entirely proved its method of predicting market movements as far as the security market is concerned. The more pertinent objection to including such material, needless to say, would be the rather impossible task of reducing such statistical and highly technical data to the comprehensive basis in a few chapters of a textbook, without the sacrifice of scientific accuracy and completeness. Part IV gives an unusually good brief summary of "the legal principles and usages governing the stock and bond market." This discussion includes as well an interpretation of the leading court cases which govern the relations and obligations between broker and customer.

This book, which is clearly a textbook on the stock market, deserves the highest commendation. No book yet written in the field of stock market operations and organization so well adapts itself to classroom purposes, and instructors who have been offering work in the field of security markets will more than welcome Professor Huebner's book.

While Huebner's book on the stock market is primarily a textbook, J. E. Meeker's book is more particularly a technical handbook on stock exchange operations. This does not imply that the contents of Mr. Meeker's volume are above the understanding of the average reader. It is an exceptionally readable book on a highly technical subject. Mr. J. Edward Meeker, as economist of the New York Stock Exchange, has been in an unusual position to secure personal information which is so valuable in the compilation of a book of this character. The author states, however, that "the present study is in no sense an official publication of the stock exchange, nor does it bear any official indorsement by that body."

The book is a very complete and a very detailed study of the machinery, operations and economic functions of the stock exchange. The text has numerous photographic illustrations and a large number

of forms used by brokerage houses and the stock exchange clearing house. An extensive appendix of valuable technical material is included which is of value to both teacher and broker. A very large amount of new material hitherto not published has been issued for the first time. This applies particularly to the material on odd lot traders, floor trader specialists, collateral loan market and the stock exchange clearing house.

The method of approach followed by Mr. Meeker to the problem of the stock market materially differs from that of Professor Huebner. The former reverses the order of approach of the latter, *i. e.*, the organization and technique of operations are first covered and followed by a discussion of the functions of the organized exchange market. In this latter are included a consideration of the dangers of speculation and the regulations of the exchange in protecting the buyer and the seller.

The author has purposely, as he again states in his preface, shunned controversial questions, yet all moot questions have not been avoided as, for example, that of incorporation of the exchange (p. 349), though in all such cases the author has quite closely adhered to a brief statement of the historical facts. It would, however, seem desirable to the reviewer to have included a considerable discussion of such problems as the auditing of member accounts, recently adopted in modified form by the New York stock exchange. Where the author has been obliged to deal with a moot question, he treats his problem with fairness, though a conscious effort seems to have been made to set forth only those things which could be praised and omit all others. On the other hand, as implied in the comments on Professor Huebner's book, strong objection can be raised against the inclusion of much of the temporary controversial material, too often merely political, and of passing interest in a purely scientific work.

Where more extended courses are given in the subject of stock exchanges, Mr. Meeker's book should prove to be an excellent companion and reference book to Huebner's text. The detailed method, however, in which Mr. Meeker has treated operations and transactions will necessitate rather frequent revision as changes in the governing rules of the stock exchange are frequently made.

WALTER E. LAGERQUIST.

Northwestern University.

Electrical Rates. By G. P. WATKINS. (New York: D. Van Nostrand Company. 1921. Pp. 228.)

The electrical business has developed with leaps and bounds during the past twenty years. This has been especially true during the past ten years, with the introduction of larger and much more economical

central station generating units and with the great improvements in transmission over long distances from the central stations.

This technological or physical development has brought about a corresponding importance in the economic phases of the business relating to investment, operating costs, rates, and return on investment. Dr. Watkins in the present volume has devoted himself especially to the economic problem of rate making. Unfortunately, electrical rates have become established largely through more or less haphazard business expediency, modified by political considerations, with comparatively little direct regard for the economic background of sound rate policy. Dr. Watkins has thus performed a signal service in presenting and discussing the economic phases of electrical rate making.

The book contains eight chapters, also a number of diagrams and curves representing electric supply and conditions of electrical rate systems. A detailed analysis cannot be made for lack of space. The subject is so technical and complicated that a reliable comprehensive summary of the content and point of view is difficult. The scope of the book is indicated by the chapter headings: The peculiar interest and importance of electrical rates; Types and elements of electrical rates described; The reimbursement of separable or prime cost; Class rates and rate differentiation; Load-factor rates; Wholesale rates and quantity discounts; The general theory of differential rates; Suggestions for a model rate schedule.

The author describes the principal classes of rates ordinarily employed in the electrical business and analyzes them from the economic background. Perhaps a fair general statement of his view of a desirable system of rates is that each consumer or group of consumers should pay as nearly as possible the so-called "separable" or "direct" or "prime" cost which is incurred directly for the consumer or the group, and in addition should contribute to the remaining "non-separable" or "joint" or "fixed" costs, including return on investment, upon such "differential" bases as will obtain the maximum economical utilization of the plant and distribution system.

Rate schedules have been fixed more or less clearly on theories of complete cost analysis, with the general effect of merely pro-rating or apportioning the non-separate or joint costs on the basis of assumed relative demand on the investment in plant capacity. This is usually determined by the maximum kilowatt required by each consumer compared with the total maximum kilowatt demand upon the central station, provided for directly or indirectly by a "maximum demand" charge. Dr. Watkins distinguishes such maximum demand rates based upon cost apportionment from differentiation, which has in view the maximum utilization of the investment and seeks the apportion-

ment of all joint costs above the direct or separable costs with the purpose of obtaining such maximum economical utilization.

Dr. Watkins recognizes, however, that in special instances the maximum demand of the consumer is a proper factor in rate making: where such demand actually adds correspondingly to the peak load of the system and requires a proportionate additional investment in plant capacity. In such instances, however, the demand factor becomes in reality a separable cost chargeable directly to the consumer and not a joint cost subject to differential rate grouping. For the most part, however, individual maximum demands have little relative significance except as they coincide with the peak load; but even in such cases they may improve the load factor of the system and thus diminish the joint costs in proportion to the kilowatt hour output. But if the individual's maximum demand does not coincide with the system peak, then it does not add proportionately to the central station requirements and does not furnish a direct measure of joint costs with which it should be properly charged. If it comes off the peak entirely it deserves even favorable consideration in the allocation of joint cost. Moreover, in the case of the mass of small consumers there is no practicable measure of the maximum demand.

The system as a whole is as much interested in filling up the valley of its load curve as in keeping down the peak. A controlling consideration, therefore, in developing a system of differential rates is to obtain the greatest density of use with the maximum leveling of the load curve. A proper system of rates would thus include (1) all direct or separable costs partly as a consumer or meter charge and partly as a flat kilowatt hour charge and (2) such a proportion of the joint or non-separable costs as will best develop the business to maximum utilization, providing however that all joint costs incurred by the system are absorbed by the total charges to all classes of consumers. A model rate schedule is outlined in the concluding chapter. This provides for a maximum demand charge for large consumers where the maximum can actually be measured by meter. For the small consumers, there is a meter charge and a rather low kilowatt hour charge, with a discount for contribution to density (a measure which is outlined). Provision is made also for special rates to meet practical conditions which cannot be provided for in a general schedule.

Dr. Watkins practically adopts the common policy underlying railway freight rates, although because of the character of the business he employs an altogether different group of technical terms. In effect he would classify the service on the basis of the ability of each class to absorb the joint or non-separable costs. This is the underlying technical view of railway freight classifications and charging "what the traffic will bear." This appears to be sound principle; it avoids

arbitrary assignment of costs to particular groups of service, which may retard the economical utilization of the plant and equipment and would result in greater joint costs to be absorbed by all other classes of consumers. The statement of principle, however, is one thing, but practical application is quite another. Differentiation readily shades into discrimination and unjustified rate competition, which in the past characterized the railway freight rates and has by no means been absent from the electrical business. This danger, however, is clearly recognized by Dr. Watkins; but with clear understanding of the danger and with readiness to adjust rates that prove to be uneconomical, the principle of rate differentiation appears to be sound and should control in the establishment of electrical rate schedules. In any event, the principle can be worked out only through a very large amount of practical experimentation.

The book will undoubtedly be read chiefly by specialists interested in electrical rate making. It should be of interest and great value, however, also to the general economist in that it presents the difficulties of price making in a great modern industry. It furnishes an excellent opportunity to match up very carefully one's ideas of marginal utility or supply and demand in determining actual prices charged in the sale of an important service.

JOHN BAUER.

New York City.

NEW BOOKS

ASPLEY, J. C. *How to sell quality; a resumé of methods successfully used by prominent salesmen to meet price competition; hold customers for the future and to cement good-will.* Second edition. (Chicago: Dartnell Corporation. 1922. Pp. 111. \$1.10.)

_____. *What a salesman should know about credits.* Third revised edition. (Chicago: Dartnell Corporation. 1921. Pp. v, 102. \$1.10.)

BASSETT, W. R. *Getting a profit out of low prices.* The Sphinx Talks, May, 1922. (New York: Miller, Franklin, Bassett & Co., 347 Madison Ave. 1922. Pp. 15. 10c.)

BATARDON, L. *Traité pratique des sociétés commerciales au point de vue comptable, juridique et fiscal.* (Paris: Lib. Dunod. 1922. Pp. 890. 55 fr.)

BENSON, P. A. and NORTH, N. L., JR. *Real estate principles and practices.* (New York: Prentice-Hall. 1922. Pp. x, 342.)

BLACK, H. C. *A treatise on the law and practice of bankruptcy, under the act of Congress of 1898, and its amendments.* Third edition. (Kansas City, Mo.: Vernon Law Book Co. 1922.)

BULL, A. E. *Buying goods; the commercial buyer and his work.* (New York: Pitman. 1922. Pp. vii, 96.)

BURCHELL, D. E. *Industrial accounting*. (Cambridge, Mass.: Author. 1921.)

CALKINS, E. E. *The advertising man*. (New York: Scribner's. 1922. Pp. 205. \$1.25.)

CANNONS, H. G. T. *Bibliography of industrial efficiency and factory management*. (New York: Dutton. 1922. \$5.)

CHAFFEE, F. E. and KERBY, M. *Self-service in the retailing of food products*. Department of Agriculture bull. no. 1044. (Washington: Supt. Docs. 1922. Pp. 52. 10c.)

CHARTERS, W. W. *How to sell at retail*. (Boston: Houghton Mifflin. 1922. Pp. viii, 326. \$3.)

The method employed in the writing of this volume is "that of finding out practical difficulties of salesmen, collecting the practical methods used by expert salespeople in meeting these difficulties, and using the principles to explain the methods." Sixty difficulties encountered by retail salespeople are listed. Twenty-five people were trained in the methods of interview, after which training they had conferences with three hundred expert salespeople selected from large department stores. By this means methods used by from thirty to one hundred and ten experts in handling each difficulty have been gathered and organized in the text.

CLARK, W. I. *Health service in industry*. (New York: Macmillan. 1922. Pp. ix, 168.)

COLEMAN, E. J. *Cost accounting in the canning industry*. Official publications, vol. III, no. 17. (New York: National Assoc. of Cost Accountants. 1922. Pp. 19. 75c.)

CONYNGTON, T., BENNETT, R. J. and PINKERTON, P. W. *Corporation procedure; law—finance—accounting*. (New York: Ronald. 1922. Pp. xx, 1689. \$10.)

CONYNGTON, T., KNAPP, H. C., and PINKERTON, P. W. *Wills, estates, and trusts: a manual of law, accounting, and procedure, for executors, administrators, and trustees*. Two vols. (New York: Ronald. 1921. Pp. 825. \$8.)

Two members of the New York Bar, Messrs. Thomas Conyngton and Harold C. Knapp, and an associate of the American Institute of Accountants, Mr. Paul W. Pinkerton, have coöperated in the publication of these two volumes. The purpose is to provide a working manual for executors, administrators, and trustees. The subject-matter is grouped as follows: part I, Transfer of property by death; part II, Settlement of estates; part III, Taxes; part IV, The law of trusts; part V, Banks and trusts companies as trustees; part VI, Accounting for estate of decedents; part VII, Forms.

CURRY, P. E. and RUBERT, V. M. *Business arithmetic*. (Cincinnati, O.: South-western Pub. Co. 1922. Pp. 320. \$1.32.)

EDGERTON, E. I. and BARTHOLOMEW, W. E. *Business mathematics. A textbook for schools*. (New York: Ronald. 1921. Pp. 305.)

Contains chapters on Sales and Profits, Statistics, Pay-roll Calculations, Interest, Depreciation, Insurance, Exchange, Taxes, Interest on Bank Accounts, Graphical Representation, Averages, Commercial Applications of Logarithms.

- ESQUERRÉ, P. J. *Practical accounting problems, theory, discussion, and solutions. Part II.* (New York: Ronald. 1922.)
- FLEMING, A. P. M. and PEARCE, J. G. *Research in industry; the basis of economic progress.* (New York: Pitman. 1922. Pp. xv, 244.)
- FROTHINGHAM, F. E. *Muscle Shoals from the banker's point of view.* (Boston: Author, Coffin & Burr. 1922. Pp. 12.)
- GERTSENBERG, C. W. *The law of bankruptcy.* (New York: Prentice-Hall. 1922. Pp. 200. \$2.50.)
- HAENISCH, F. A. *Some cost problems in the Hawaiian sugar industry.* Official publications, vol. III, no. 4. (New York: National Assoc. of Cost Accountants. 1921. Pp. 16. 75c.)
The fifty or so plantations are controlled by the Hawaiian Sugar Planters' Association. The cost accounting of the industry is being standardized more and more, and is here discussed under headings including Labor (the most important item, and that involving the greatest problems), Operating Expenses, The Cultivating Contract, Pay Roll Analysis, Manufacture and Shipment of Sugar, By-Products, Indirect Expenses, and Fixed Charges. The last includes the "bonus" which is paid on the basis of the price of sugar in New York, regardless of the profit or loss of the individual plantation paying the bonus.
- HAYWARD, W. R. and PRICE, I. *Progressive problems in bookkeeping and accountancy.* (New York: Macmillan. 1922. Pp. viii, 149. 80c.)
- HAZELL, W. H. H. *Costing for manufacturers.* (London: Nisbet. 1922. Pp. 161. 12s. 6d.)
- HOENIG, L. J. *Modern methods in selling; a book for every man and woman in business.* (Indianapolis: Bobbs-Merrill Co. 1922. Pp. 299.)
- HOWE, J. A. *Iowa probate law; the settlement of estates, legal duties of executors, administrators, guardians and trustees.* (Des Moines, Ia.: Registers and Tribune Job Office. 1922. Pp. 125.)
- HYSELL, H. *The science of purchasing.* (New York: Appleton. 1922. Pp. xi, 261. \$2.50.)
- JESNESS, O. B. *Coöperative marketing.* Circular no. 115. (Lexington, Ky.: Univ. of Kentucky, College of Agriculture, Extension Div. 1922. Pp. 22.)
- KOKINS, I. W. *The scrap problem.* (New York: National Assoc. of Cost Accountants. 1922.)
- KRAUSE, L. B. *Better business libraries; talks with executives.* (Chicago: The Indexers Press, 5526 S. Park Ave. 1922. Pp. 97. \$1.30.)
- LAUCK, W. J. and WATTS, C. S. *The industrial code. A survey of the post-war industrial situation, a review of wartime developments in industrial relations, and a proposal looking to permanent industrial peace.* (New York: Funk & Wagnalls. 1922. Pp. v, 571. \$4.)
- LENT, F. *Grundriss der Freiwilligen Gerichtsbarkeit.* (Leipzig: Deitcheutsche Verlagsbuchhandlung. 1922. Pp. 108. 110 M.)
A minute account of the conditions of 'voluntary arbitration' of civil

cases in Germany and of the proceedings in them, with a classification of such cases as are within the competence of the courts of arbitration.

R. R. W.

LONCEL, E. *Calcul du rendement des obligations à long terme.* (Paris: Boyveau et Chevillet. 1922. Pp. 88.)

LORD, I. E. *Getting your money's worth; a book on expenditure.* (New York: Harcourt, Brace & Co. 1922. Pp. vi, 210.)

MARSHALL, L. C. *Cases and problems.* No. 1, *The Noel Slate and Manufacturing Company.* Materials for the study of business. (Chicago: Univ. of Chicago Press. 1922. Pp. 52. 52c.)

MUNN, G. G. *The paying teller's department.* (New York: Bankers Pub. Co. 1922. Pp. 144.)

OERTMANN, P. *Die Geschäftsgrundlage; ein neuer Rechtsbegriff.* (Leipzig: Deichert'sche Verlagsbuchhandlung. 1921. Pp. 179. 150 M.)

A discussion of the conditions of business contracts and of obligations under testaments, and of the cases in which, owing to a change of circumstances, such obligations may be annulled according to German law.

R. R. W.

PARSONS, T. *Laws of business for all the states and territories of the Union and the Dominion of Canada.* New enlarged edition. (New York: Doran. 1922. Pp. xix, 961. \$6.)

PILLING, E. W. *Premium bond values tables; showing values of and yields from bonds redeemable at a price other than par.* (Boston: Financial Pub. Co. 1922. Pp. 75. \$7.50.)

PIXLEY, F. W., editor. *The accountant's dictionary.* Two vols. Vol. I. (New York: Pitman. 1922. Pp. 495. \$18.)

ROBERT, U. and MULHERN, J. J. *Cost accounting in the oil refining industry.* Official publications, vol. III, no. 18. (New York: National Assoc. of Cost Accountants. 1922. Pp. 12. 75c.)

Phases of oil refining operations, organization of the cost department, classification of accounts, accumulation of costs by processes and departments, apportionment of process costs, and delivery cost records are described.

SAPIRO, A. *Addresses on coöperative marketing.* (Toronto, Ontario: Ontario Dept. of Agri. 1922. Pp. 39.)

SHEAFFER, W. A. *Metropolitan system of bookkeeping, embracing theory and practice of bookkeeping and accounting for high schools, parochial schools, academies and all other schools teaching the subject.* New edition. (Chicago: Metropolitan Text Book Co. 1921. Pp. 208.)

SHRUBSALL, F. W. *Efficient salesmanship; the organization and management of the sales department.* (New York: Pitman. 1922. Pp. ix, 117. 85c.)

SOURIAU, M. *Notions de sociologie appliquée à la morale et à l'éducation.* (Paris: F. Nathan. 1921. Pp. 141.)

SPENCER, W. H. *Law and business.* Vol. III, *Law and risk-bearing; law and labor; law and the form of the business unit.* (Chicago: Univ. of Chicago Press. 1922. Pp. xviii, 653. \$4.50.)

SPILKER, J. B. and CLOUD, P. G. *Real estate business as a profession.* (Cincinnati, O.: Stewart, Kidd Co. 1922.)

STOCKDER, A. H. *Business ownership organization.* (New York: Holt. 1922. Pp. xvii, 612.)

STRONG, E. K. JR. *The psychology of selling life insurance.* (New York: Harper Bros. 1922. Pp. xii, 489. \$4.)

The author's intention to present a "psychology that would explain in non-technical language the principles of selling life insurance" has been effectively and interestingly accomplished. He replaces the customary elaborate description of supposed states of mind with definite functional facts; he replaces salesmanship deduced from theoretical psychology with practical psychology induced from actual sales experiences. The complete quotation of several of these sales experiences serves in general as the nucleus of the volume, and in particular drives home the author's reiteration that the salesman must think out concretely and specifically his "strategy of selling" for each individual prospect. The book is so definitely and concretely organized, and so profuse with forceful illustrations that it cannot but stimulate any salesman to a more vigorous service.

CHARLES LEONARD STONE.

SZEPESI, E. *Cost control and accounting for textile mills.* (New York: Bragdon, Lord & Nagle Co. 1922. Pp. xxiv, 441.)

TIPPER, H. *Human factors in industry, a study in group organization.* (New York: Ronald Press Co. 1922. Pp. 280. \$2.)

VIRGIN, R. Z. *Mine management; a practical handbook for use in vocational schools, mining colleges and universities.* (New York: D. Van Nostrand Co. 1922. Pp. xi, 109. \$2.)

WAITE, J. B. *The law of sales.* (Chicago: Callaghan. 1921. Pp. xii, 385.)

WALTER, F. W., editor. *The retail charge account.* Prepared under the direction of the educational committee of the Associated Retail Credit Men of New York City, Inc. (New York: Ronald. 1922. Pp. xiii, 264. \$3.)

WHITEHEAD, E. J. *The law of real property in Illinois.* (Chicago: B. J. Smith & Co. 1922.)

WILLARD, R. E. *Simple farm accounts; a textbook and guide.* (Fargo, N. D.: Author. 1922. Pp. 106. \$1.75.)

ZOELLER, K. W. *Merchandising the plumbing business.* (Chicago: Domestic Engg. Co. 1921. Pp. 107.)

Commercial libraries and the department of commerce. (Washington: Special Libraries Assoc. 1922. Pp. 28.)

Coöperative competition. Twenty-five illuminating articles on trade associations with an introductory article by HERBERT HOOVER. (New York: Evening Post. 1922.)

Course in textile production methods. Vol. I, Team leadership. (New York: Business Training Corporation. 1922. Pp. 138.)

The ethics of the professions and of business. The Annals, vol. XI, no. 190. (Philadelphia: Am. Academy Pol. and Soc. Sci. 1922. Pp. 315. \$1.)

Forty-seventh annual report of the council of the Corporation of Foreign Bondholders. For the year 1920. (London: Corporation. 1921. Pp. 370. 2s. 6d.)

A general charter for trade associations. (New York: Federal Trade Information Service. 1922. Pp. 46. 25c.)

Handbook of listed foreign bonds. (New York: McKinley & Morris. 1921. Pp. 55. \$1.)

Hiring men because they control accounts. (New York: Am. Assoc. of Advertising Agencies. 1922. Pp. 22.)

Method in merchandising. (Grand Rapids, Mich.: Welch-Wilmarth Companies. 1922. Pp. 48.)

Operating accounts for retail shoe stores. Harvard University Bureau of Business Research, bull. no. 2. Third edition. (Cambridge: Harvard Univ. Press. 1921. Pp. 47. \$1.)

Operating expenses in the wholesale grocery business, in 1921. Harvard University Bureau of Business Research, bull. no. 30. (Cambridge: Harvard Univ. Press. 1922. Pp. 39. \$1.)

Psychological tests in industry. Bull. no. 49. (New York: Russell Sage Foundation Library. 1921. Pp. 4. 10c.)

Retail grocery stores. A study of certain problems of the retail grocer in New York City including the results of investigations conducted during the war period by the New York Federal Food Board and the New York State Food Commission. (Albany: N. Y. State Dept. of Farms and Markets. 1922. Pp. 29.)

Selected professional and business books. (Boston: Scovell, Wellington & Co. 1922. Pp. 25.)

System of stock-keeping for retail shoe stores. Harvard University Bureau of Business Research, bull. no. 7. Revised edition. (Cambridge: Harvard Univ. Press. 1922. Pp. 22. \$1.)

Capital and Capitalistic Organization

NEW BOOKS

ETTINGER, R. P. *Corporation laws of New York: reprint of the New York laws governing corporations, partnerships and associations.* (New York: Prentice-Hall. 1921. Pp. 374.)

ISAAC, C. P. *The menace of money power.* (London: Cape. 1921. Pp. 294.)

LOEB, C. G. *Legal status of American corporations in France.* (New York: N. A. Phemister Co., 42 Broadway. 1922. Pp. 578. \$12.)

McCoy, W. A. *Business trust agreements and declarations of trust.* (Pittsburgh, Pa.: McCoy's Organizing Bureau. 1922. Pp. 259. \$10.)

MURRAY, W. S. *Government owned and controlled, compared with privately owned and regulated electric utilities in Canada and the United States.* (New York: National Electric Light Assoc. 1922. Pp. 223.)

REES, J. M. *Trusts in British industry, 1914-1921.* (London: King. 1922.)

The federal antitrust laws with amendments. (Washington: Supt. Docs. 1922. 10c.)

New York laws affecting business corporations; revised to May 1, 1922.
Edited by J. B. R. SMITH. (New York: U. S. Corporation Co., 65 Cedar St. 1922. Pp. xxxii, 260. \$2.)

Labor and Labor Organizations

The Human Factor in Business. By B. SEEBOHM ROWNTREE. (London: Longmans, Green and Company. 1921. Pp. ix, 176. \$2.00.)

Mr. Rowntree has given us in this book both a description of the many-sided plan of industrial relations in the famous Cocoa Works at York—and a statement of his own views on many aspects of the labor problem. His viewpoint is that of the social reformer, but the personal experience on which he draws is that of a large employer and a public official in intimate contact with the problems which he discusses. His primary purpose is to describe the ways in which his company has attempted to meet the human needs of the workers and the results which have been obtained. This has led him to discuss in a general way what these needs are and how far and through what means they can be met in modern industry.

The descriptive material and much of the general discussion is arranged under the five headings of wages, hours, security of life, joint control and good working conditions. The last topic includes training of the workers, medical service, and kindered phases of "welfare work." This chapter is the longest of the book, occupying almost half of the 156 pages of text. In the determination of wages and hours, the system of employee representation within the plant is coördinated with trade-union participation in control and with the joint regulation of the whole industry by the Interim Industrial Reconstruction Committee. It is interesting to see how these three types of workers' participation in control function in relation to each other. The chapter on security of life reveals the inadequacy of the state system of social insurance and shows how it has been supplemented by contributory and non-contributory (from the workers) provision for unemployment, sick, invalidity and death benefits and old age and widows' pensions.

Mr. Rowntree presents his conclusions as to needs, ideals, and possibilities of achievement in the fields of labor conditions, control, and rewards, with modesty and open-mindedness. He is impressed by the limitations imposed by cost and by the necessity of increasing pro-

duction if the standard of living of the workers is to be raised to the level which he advocates. This comes out clearly in the conclusion that hours should not be reduced below forty-eight a week in most industries unless the reduction is necessary for the preservation of health or can be made without materially increasing the cost of production. "We are so much nearer the ideal as regards hours than wages," he writes, "that the latter should take precedence over the former where the claims of the two conflict." It is characteristic of the book that he then goes on to report that the reduction of hours to forty-four a week in his own plant was followed by no reduction in the output of the hand workers and by a pro-rata reduction for only a part of the machine tenders, whereas the effect on the health of the employees was decidedly beneficial.

D. A. McCABE.

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NEW BOOKS

- AMAR, J. *The human motor: the scientific foundations of labor and industry.* (New York: Dutton. 1922. \$10.)
- ANDERSON, G. J. *Labor policy in the bituminous coal industry.* (New York: Author; Curtis, Fosdick & Belknap, Woolworth Bldg. 1922. Pp. 41.)
- ASSAN, G. G. *La question du contrôle ouvrier en Italie, avec un aperçu dans les autres pays.* (Paris: Giard. 1922. Pp. 177. 10 fr.)
- BLOCH, L. *The coal miners' insecurity. Facts about irregularity of employment in the bituminous coal industry in the United States.* (New York: Russell Sage Foundation. 1922. Pp. 50. 50c.)
- BOWIE, J. A. *Sharing profits with employee; a critical study of methods in the light of present conditions.* (London: Pitman. 1922. 10s. 6d.)
- BRODA, R. *Les résultats de l'application du salaire minimum pendant et depuis la guerre.* (Bern: Ernest Bircher. 1922. Pp. 39. 10 fr.)
- CLAY, A. *Syndicalism and labour.* (New York: Dutton. 1922. \$3.)
- DREW, W. *Building and the public.* No. 51. (New York: National Assoc. of Manufacturers, 50 Church St. 1922. Pp. 23.)
- DUBLIN, L. I. and LEIBOFF, P. *Occupation hazards and diagnostic signs. A guide to impairments to be looked for in hazardous occupations.* Bureau of Labor Statistics, bull. no. 306. (Washington: Supt. Docs. 1922. Pp. 31. 5c.)
- GILCHRIST, R. N. *Conciliation and arbitration.* Bulletins of Indian industries and labor, no. 23. (Calcutta: Supt. Gov. Prtg. 1922. Pp. 237.)
- HAPGOOD, P. *In non-union mines. Diary of a coal miner in western Pennsylvania.* (New York: Bureau of Industrial Research, 289 Fourth Ave. 1922. 50c.)

- HUGGINS, W. L. *Labor and democracy.* (New York: Macmillan. 1922. Pp. xii, 213. \$1.25.)
- MACRAE-GIBSON, J. H. *The Whitley system in the civil service.* (London: Fabian Soc. 1922. 1s.)
- MORROW, E. H. *The Lynn plan of representation.* (Lynn, Mass.: General Electric Co. 1922.)
- PIC, P. *Traité élémentaire de législation industrielle. Les lois ouvrières.* (Paris: Lib. Arthur Rousseau. 1922. Pp. 1044. 35 fr.)
- PICARD, R. *Le contrôle ouvrier sur la gestion des entreprises.* (Paris: Marcel Rivière. 1922. Pp. 280. 4.50 fr.)
- PHILLIPS, M. *The young industrial worker.* (London: Oxford Univ. Press. 1922. 4s. 6d.)
- ROGER, F. *La réforme du régime foncier en France.* (Paris: Lib. Marchal et Billard. 1922. Pp. 250. 10 fr.)
- SARGENT, N. *How the open shop brings prosperity.* No. 50. (New York: National Assoc. of Manufacturers, Open Shop Department, 50 Church St. 1922. Pp. 23.)
- SAVOY, E. *La charte internationale du travail.* (Fribourg: Saint Paul. 1921. Pp. 31.)

- STOCKTON, F. T. *The International Molders Union of North America.* (Baltimore: Johns Hopkins Press. 1921. Pp. 222. \$1.50.)

This monograph is a detailed study of one of the oldest of American trade unions. Organized in 1859, the molders union has always been a militant one and reflects in its development and policies the changing conditions in American industry. After the first two chapters on the rise of the early local unions and the founding of the international union, which are mainly chronological, Dr. Stockton develops his subject along topical lines. Separate chapters on government, jurisdiction, membership, finance, mutual insurance, the control of strikes, national collective bargaining, the standard rate, molding machinery, and the closed shop, the label and the boycott show how and why certain developments and policies have come about. Some aspects of the union's development are, however, not mentioned, as, for example, the movement for coöperative production under President Sylvis from 1866-1868 which, because it failed, led to renewed emphasis on trade-union policies. The monograph is thoroughly documented and while not affording new viewpoints, the details brought out enlarge our knowledge of trade unionism.

GEORGE M. JANES.

- SUTCLIFFE, J. T. *A history of trade unionism in Australia.* (Melbourne: Macmillan. 1921. Pp. 194.)
- WILSON, J. M. C. *The labor movement and the church.* (Boston: Stratford Co. 1922. Pp. 73.)
- Constructive experiments in industrial coöperation between employers and employees.* A series of addresses and papers presented at the annual meeting of the Academy of Political Science in the City of New York, November 4-5, 1921. Proceedings, vol. IX, no. 4. (New York: The Academy, Columbia Univ. 1922. Pp. vii, 256.)

- The cost of living among wage earners, anthracite region of Pennsylvania, February, 1922.* Special report no. 21. (New York: National Industrial Conference Board. 1922. Pp. 41.)
- Experience with works councils in the United States.* Research report no. 50. (New York: National Industrial Conference Board. 1922. Pp. 190. \$2.00.)
- Individual differences in the output of silk-weavers.* Reports of the Industrial Fatigue Research Board. (London: King. 1922. 1s. 6d.)
- The International Labor Organization of the League of Nations.* Research report no. 48. (New York: National Industrial Conference Board. 1922. Pp. 160. \$2.)
- Joint Board of Sanitary Control in the Cloak, Suit and Skirt and Dress and Waist Industries, eleventh annual report, 1922.* (New York: Board, 131 E. 17th St. 1922. Pp. 32.)
- Labour legislation in Canada for 1921.* (Ottawa: Dept. of Labour. 1922. Pp. 96.)
- Labour organization in Canada for 1921. Eleventh annual report.* (Ottawa: Dept. of Labour. 1922. Pp. 302.)
- Manual of the labor laws enforced by the Department of Labor and Industries, November, 1921.* (Boston: Mass. Dept. of Labor and Industries. 1922. Pp. xiv, 162.)
- New York labor laws enacted in 1922.* Special bull. no. 111. (Albany: State Dept. of Labor. 1922. Pp. 38.)
- Plan of employee representation.* (New York: N. Y. Telephone Co. 1922.)
- Railroad wages and working rules.* Research report no. 46. (New York: National Industrial Conference Board. 1922. Pp. viii, 130. \$2.)
- Report of the Department of Labour for the fiscal year ending March 31, 1921.* (Ottawa: Dept. of Labour. 1921. Pp. 135.)
- The third International Labour Conference, October-November, 1921.* (Geneva: International Labour Office. 1922. Pp. 36.)
- Trade boards. Report of Departmental Committee on the working and effects of the trade boards acts.* (London: H. M.'s Stationery Office. 1922. 2s.)
- Unemployment; a selected bibliography.* Bull. no. 50.. (New York: Russell Sage Foundation Library. 1921. Pp. 4. 10c.)
- Wages and hours in anthracite mining, June, 1914—October, 1921, inclusive.* Research report no. 47. (New York: National Industrial Conference Board. 1922. Pp. 67. \$1.50.)
- Wirtschaftliches Arbeitnehmer-Taschenbuch.* (Stuttgart: Volkerverlag für Wirtschaft und Verkehr. 1922. Pp. 208.)
- Women in Georgia industries: a study of hours, wages, and working conditions.* Bull. of the Women's Bureau, no. 22. (Washington: Supt. Docs. 1922. Pp. 89.)

Money, Prices, Credit, and Banking

Banking and Business. By H. PARKER WILLIS and GEORGE W. EDWARDS. (New York: Harper and Brothers. 1922. Pp. x, 573. \$3.50.)

It is the belief of the authors of *Banking and Business* that the orthodox method of introducing the prospective business executive to the financial aspects of his job is ineffective. Almost without exception, the books which have been designed for use in the introductory course in business finance have begun with an account of the evolution of media of exchange, proceeded to the traditional presentation of the theory of money and prices, and ended with a discussion of the nature of banking organization and operations, with special reference to the relation of these operations to the mechanism of exchange.

The present volume contains only a modicum of monetary theory, introduced largely for the sake of throwing light upon certain points in the discussion of banking operations. After a brief first part devoted to general preliminary topics such as the nature of exchange, credit and credit instruments, and the classification of banking institutions, the extended discussion of commercial bank organization and methods is taken up. The financial needs of the business man rather than the profits of the banker or the public aspects of finance are the primary concern of the authors, although consideration is given to some of the broader aspects of public regulation and to banking policies and practices abroad. In part three are grouped the so-called non-commercial banking institutions: the bond house, the savings bank, and the trust company. For part four have been reserved those "more theoretical and historical sides of the subject" which usually precede the discussion of organization and methods. Here the student is introduced to the principal foreign banking systems, to the history of American banking, the organization and functions of the federal reserve system and the relation of banking and government. Very brief consideration is also given to the question of the value of money, the relation of banking to the medium of exchange and to the theory of prices.

A somewhat unusual feature is the addition of a series of appendices containing supplementary readings and a group of foreign bank statements for use in connection with the appropriate part of the main text.

The book is thoroughly readable and undoubtedly will prove as thoroughly teachable. In the opinion of the reviewer, its chief defects are (1) its failure to impress upon the reader the fact that the various financial institutions are parts of an interrelated system; that they are all engaged in various phases of a common task, viz., providing

an adequate supply of spendable funds to business enterprises. (2) Although the order of presentation adopted by the authors undoubtedly more readily arouses the interest of the student, the orthodox order is superior in that it follows the natural evolution of the present mechanism of exchange and thus develops the subject in a more orderly manner. (3) It would be deplorable indeed if students were graduated from a college of commerce with no more contact with monetary principles and problems than are offered in the few cut and dried propositions set forth in *Banking and Business*. Some recent astonishing utterances of prominent men upon monetary questions convince the reviewer of the error of the author's statement that "discussion of the abstractions of monetary science should be largely avoided." (4) The long-drawn-out discussion of the various measures which formed a part of the background of the federal reserve is uninteresting and in fact confusing to the beginning student in finance and therefore should be reserved for advanced students who are interested in an intensive study of the system.

GEORGE W. DOWRIE.

The University of Minnesota.

The World's Monetary Problems. By GUSTAV CASSEL. (London: Constable & Company. 1921. Pp. 154. 3s. 6d.)

The volume contains two memoranda, written in response to the invitation of the League of Nations, the first for the International Financial Conference in Brussels, 1920; the second for the meeting of the Financial Committee of the League of Nations in September, 1921.

The first memorandum deals with inflation, the second with deflation. In the first, the dangers of inflation are emphasized and the author urges that restrictions be set up against further indulgence in that direction. In the second, however, he attributes the breakdown in production and the widespread existence of unemployment to what he characterizes as a drastic policy of deflation. Professor Cassel's words in this connection have given aid and comfort to the many advocates of "soft" money in this country.

According to the memorandum, inflation, due first to the creation of credit currency—loans made in excess of real savings—has been furthered by huge government expenditures, heavy taxation, and by certain efforts to counteract the evils of previous inflation. When taxes become a heavy burden, tax payers are forced to borrow from the banks to make their payments. This increases the volume of credit currency without increasing the stock of commodities, thus causing further inflation. Likewise attempts on the part of governments to supply their people with goods at prices below cost of production; to pay subsidies, bonuses, allotments and allowances, most of which are at-

tempts to compensate for the ill effects of previous inflation, all necessitate the creation of additional credit currency and thus enhance inflation.

The effect of inflation, with its concomitant depreciation of currency has been to drive gold out of most countries and into the bank vaults of one or two others, notably the United States. This increase in the supply of gold in such countries has lessened its value in comparison with commodities.

Throughout the world, currencies of all kinds have thus depreciated. For most countries it is useless, and is even a serious hindrance, to speak of normal parities with gold, since these countries do not possess, nor are they likely to obtain at any time in the future, sufficient gold to restore the old relationships. The important thing after all, he contends, is the purchasing-power parity. If that can be stabilized, the business of the world can go forward. Rates of exchange are disturbing to international trade only in so far as they deviate from purchasing-power parities. Valuations which are put on foreign money depend upon the relative purchasing power of the currencies of both countries.

Professor Cassel discredits the explanation of the anti-quantity theorists that the rise in prices was caused by a scarcity of commodities, and that this resulting rise in the level of prices necessitated an increase in the quantity of money. The shortage in commodities should have led to a decrease in currency since there was then less money work to be done. But since the quantity of money was not decreased to correspond with the reduced supply of commodities, the money supply was redundant and the price level rose. Hence it was really inflation which was at the bottom of the demand for further inflation. Inflation is the sole cause of depressed exchanges which are anything more than temporary in their nature. Hence depressed exchanges cannot be corrected by adjustment of the trade balance. Nor can the money standards be improved by increasing the gold reserves, so long as the currency is redundant. Furthermore, improvement in government credit cannot usually give a higher value to its money standard. "International purchasing power altogether depends on the limitation of the supply of money." Further inflation causes additional fluctuations in exchange. It is this instability however, and not the level of the exchanges, that delays recovery. The first step toward recovery therefore is to stop further inflation.

Professor Cassel occupies the somewhat unusual position of recognizing the evils of inflation and of opposing further adventures in that direction, but at the same time objecting to the process of deflation. Changes either upward or downward he desires to avoid. Indeed he goes so far as to suggest that special steps be taken by the nations

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of the world to prevent gold from rising again in value. In this connection he suggests the following alternatives—(1) progressive reduction in the monetary demand for gold; (2) immediate abandonment of the use of gold as a monetary standard.

It is asserted that the desire to restore the pre-war gold basis for currency rests upon no logical grounds, and to attain such result great hardship and national bankruptcy would have to be faced. Since few of the European countries can hope to restore the pre-war value of their currencies, their problem becomes that of stabilizing dollar exchange at some definite figure. But of course this difficulty is aggravated if the United States raises the value of the dollar by a program of deflation. The deflation policy of the United States thus forces deflation upon those countries which desire to see their currencies improve or even hold their own in the international market. The efforts of the United States to get back to a solid foundation for its own financial structure impose a heavier burden upon the struggling European nations. It seems to be largely this feeling which is responsible for Professor Cassel's sharp criticism of our deflation policy.

N. R. WHITNEY.

University of Cincinnati.

NEW BOOKS

ANGAS, L. L. B. *Reparations, trade and foreign exchange.* (London: King. 1922. Pp. 351. 12s. 6d.)

Economic aspects of the indemnity present great difficulties affecting the interests of British industries. The gist of the author's thesis is to this general effect: (1) The indemnity cannot be paid with money and will involve a transfer of goods from Germany to England. (2) These goods will compete with English products, thus causing stagnation and unemployment in British plants. (3) This situation cannot be avoided by a triangular trade arrangement, such as a plan by which there would be German dumping in Spain and Spanish dumping in England. The suggestion that Germany should pay with non-German securities is on the whole considered good; it has decided limitations, however, and there is no escaping the conclusion that the indemnity for the most part must be paid in commodities.

From the present viewpoint of unemployment, the book is most valuable in pointing out obstacles and dangers in the way of home business. It would seem, nevertheless, that the author overemphasizes the disadvantages accruing to British industry from competition of foreign goods paid for directly or indirectly by the reparations. The same objections might be made to importations in general or to trading with a country that has just begun to develop manufacturing on a successful basis.

Other matters to which attention is given include the problem of inter-allied indebtedness, foreign exchange and inflation, with special reference to unemployment.

M. J. S.

- ARNAUNÉ, A. *La monnaie, le crédit et le change. I, La circulation et ses instruments, son mécanisme.* Sixth edition. (Paris: Félix Alcan. 1922. 15 fr.)
- DIESEN, E. *Norsbank-Aarbook 1921. 1ste del: Aktiekreditbanker.* (Christiania: A[S Okonomisk Literatur. Pp. xxxii, 202. 10 Kr.)
- EKSTRÖM, Y. *Om Svensk bankverksamhet och dess teknik. I, Betalnings- och kreditmedel.* (Stockholm: Svenska Bankmannaföreningens Serieskrift. 1921. Pp. 160. 8 Kr.)
- FISCHER, C. A. *Zur Lehre vom Staatsbankrott.* (Karlsruhe: G. Braun. 1921. Pp. viii, 129. 20 M.)
- FOWLER, C. N. *The United States reserve bank; the fundamental defects of the federal reserve system exposed and the necessary remedy.* (Washington: D. C. Hamilton Book Co. 1922. Pp. 88.)
- FRASER, SIR DRUMMOND. *International credits (the ter Meulen bond scheme).* (London: Harrisons. 1922.)
- FURNISS, E. S. *Foreign exchange. The financing mechanism of international commerce.* (Boston: Houghton Mifflin. 1922. Pp. x, 409. \$2.50.)
- GOLDSBOROUGH, T. A. *Stabilizing the purchasing power of money.* Speech delivered in the House of Representatives, May 23, 1922. (Washington: Supt. Docs. 1922. Pp. 8.)
- HEYMANN, H. *Die Welt- Kredit- und Finanzreform. Ein Augruf zum Solidarismus.* (Berlin: Ernst Rowohlt. 1921. Pp. 141. 20 M.)
- HOLDSWORTH, J. T. *America's foreign loan policy.* (Pittsburgh, Pa.: Author, Bank of Pittsburgh. 1922. Pp. 23.)
- KAEFERLEIN, H. *Der Bankkredit und seine Sicherungen.* Third edition. (Nürnberg: Carl Koch. 1921. Pp. xx, 576. 45 M.)
- KAEMMERER, G. H. *Geld. Eine genetische Studie.* (Berlin: Puttkammer. 1921. Pp. 48.)
- KENT, F. I. *Factors that will help the exchange situation.* (New York: Bankers Trust Co. 1922. Pp. 31.)
A reprint of two addresses, one delivered before the National Foreign Trade Convention in Philadelphia on May 12, 1922, and the other before the American Academy of Political and Social Science in Philadelphia, on May 13, 1922.
- KIDDY, J. G. *Country banker's handbook to the rules and practices of the Bank of England, London Bankers' Clearing House, and the stock exchange.* Seventh edition, enlarged and revised to April, 1922. (London: Waterlow & Sons. 1922. 5s.)
- KOCH, A. *Der Warenkredit der Banken und seine Sicherstellung.* (Jena: Fischer. 1922. Pp. vii, 125. 21 M.)
- KÖNIG, H. *Die Befestigung der Kaufkraft des Geldes.* (Bonn: Kurt Schroeder Verlag. 1922. 20 M.)
- KURZ, H. *Die Grossbanken im schweizerischen Wirtschaftsleben.* (Zürich: Art. Institut Orel Füssli. 1922. Pp. 66. 4 fr.)

LANIER, H. W. *A century of banking in New York, 1822-1922.* (New York: Doran. 1922. Pp. x, 335. \$5.)

LANOIR, P. *Le crédit de la France.* (Paris: Giard. 1922. 2.50 fr.)

LISSAR-COHN. *Geld- und Papiergeld. Die Bedeutung der Geldwährung im Leben der Gegenwart.* (Leipzig: Voss. 1922. 8 M.)

MENZEL, C. *Die russische Bauernagrарbank. Text der Satzung von 1912 nebst Einleitung.* (Berlin: Deutsche Verlagsbuchhandlung. 1921. Pp. 36. 4.50 M.)

MONTARNAL, H. *Traité pratique du contentieux commercial de la banque et de la bourse.* (Paris: Riviére. 1922. Pp. 462. 18 fr.)

This is an account of the legal aspects of the transactions of banks and of the stock exchange in France. It is a guide for bankers, brokers, trustees and others as to points on which litigation might occur. The work is very carefully done by one of the heads of a department of the Credit Lyonnais.
R. R. W.

MUNN, G. G. *The paying teller's department.* (New York: Bankers Pub. Co. 1922.)

POHLE, L. *Geldentwertung, Valutafrage und Währungsreform.* (Leipzig: Deichertsche Verlagsbuchhandlung. 1920. Pp. 56. 30 M.)

The author, who is a professor of economics at the University of Leipzig, discusses with much acumen the present state of the monetary troubles in Germany, the causes which led to them and the possible means of relief. He finds that the weakness of the German exchange is caused not only by the balance of trade being against Germany, but even more by the depressed purchasing power of the mark in Germany itself, this being of course due to the enormous issue of paper currency. In the beginning of 1920 the purchasing power of the mark was only one eighth of what it had been in 1914. The value of the mark abroad has not always followed the ups and downs of its purchasing power at home, although in the end it does depend on the latter. As shown by statistics of the English home market the rise in prices is not always caused by the shortage of production, for this shortage in 1919 as compared with the average of the five years preceding the war amounted to only 10 per cent, whereas the rise of prices amounted to 277 as compared with 100. The author agrees with Cassel as to the soundness of the quantitative theory of money, and with the latter's statement of the "purchasing-power parity." The reestablishment of the German exchange depends on two things: the improvement in the balance of foreign trade and the checking of the inflation caused by the issue of paper money. The author is in favor of preserving the gold basis of the currency, at least for the present, and in a careful discussion of deflation advocates the reduction of the amount of gold represented by the mark.

R. R. WHITEHEAD.

SCHWIEDLAND, E. *Geld und Wahrung.* (Vienna: Author. 1921. Pp. 29. 20 Kr.)

SPALDING, W. F. *Foreign exchange and foreign bills in theory and in practice.* Fourth edition. (London: Pitman. 1921. Pp. 246. 7s. 6d.)

STEINBERG, J. *Das Geldkapital.* (Bonn: Kurt Schroeder Verlag. 1922. Pp. viii, 111. 20 M.)

- STROVER, C. *Monetary reconstruction*. (Chicago: Author, 133 W. Washington St. 1922. Pp. xiii, 91. \$1.50.)
- VON WAECHTER, S. *Der Kampf um die Währung. Die wichtigsten Währungsformen der letzten Jahrzehente und das Valutaproblem der Gegenwart*. (Berlin: Grünewald, Rothschild. 1922. 24 M.)
- WARD, W. *American commercial credits*. (New York: Ronald. 1922. Pp. xiii, 278. \$2.50.)
- WHITE, B. *The currency of the Great War*. (London: Waterlow. 1921. Pp. 104.)
- The bankers' almanac and year book, for 1921-1922*. (London: Waterlow. 1921. 42s.)
- Bank of Finland 1914-1920*. Vol. I. (Helsingfors: Bank of Finland, Statistical Dept. 1921. Pp. vii, 171.)
- Les banques suisses en 1920. Publication du Bureau de Statistique de la Banque Nationale Suisse, 1er fascicule*. (Zurich: Art. Inst. Orell Füssli. 1921. Pp. 116.)
- Building and loan associations*. (Washington: U. S. Chamber of Commerce, Civic Development Dept. 1922. Pp. 6.)
- Changes in the cost of living, July, 1914-March, 1922*. Research report no. 49. (New York: National Industrial Conference Board. 1922. Pp. 73. 75c.)
- Die deutschen Banken im Jahre 1920. Zugleich eine vollständige Statistik der deutschen Banken seit dem Jahre 1883*. (Berlin: Verlag "Der Deutsche Oekonomist." 1922. Pp. 45. 20 M.)
- Eighth annual report of the Federal Reserve Board, covering operations for the year 1921*. (Washington: Supt. Docs. 1922. Pp. ix, 720.)
- Gold (war period, 1913-1919)*. Report of the Imperial Mineral Resources Bureau. (London: King. 1922. 6s.)
- Negotiable instruments*. (New York: Am. Inst. of Banking. 1922. Pp. 480.)
- Proceedings of the third national conference of mutual savings banks*. Savings Bank Journal, vol. III, no. 3. (New York: National Assoc. of Mutual Savings Banks of the U. S. 1922. Pp. 226.)
- Das schweizerische Bankwesen im Jahre 1919*. Bearb. im Statistischen Bureau der Schweizerischen Nationalbank. (Bern: Stämpfli. 1921. Pp. 81.)

Public Finance, Taxation, and Tariff

NEW BOOKS

- BADULESCO, V. V. *Le prélèvement extraordinaire sur le capital dans l'Empire allemand*. (Paris: Giard. 1922. Pp. xxxii, 543. 25 fr.)
- BEMAN, L. T., compiler. *Selected articles on current problems in taxation*. (New York: Wilson. 1921. Pp. viii, 350. \$2.25.)

This compilation of selected readings is divided into three parts, of which the first and briefest is concerned with the general principles of

taxation, while the other two are devoted to the sales tax and the state income tax. These two sections are arranged as debaters' manuals, with briefs for and against each tax. In general the quotations are well chosen, those in the first part being mainly from standard writers, in the second from contemporary publicists, and in the third from state commissions. It is no fault of the compiler that most of the selections opposed to the state income tax are dated prior to 1916; good recent references on that side are hard to find. There are useful detailed bibliographies. Part I is too brief and elementary to be of much use in a college course, but parts II and III, especially III, would make very good collateral reading. Even part I would be very desirable to place in the hands of public speakers and editorial writers, or anyone else who is in the habit of expressing his views on matters connected with taxation without having studied the fundamental principles.

RUFUS S. TUCKER.

BLACK, H. C. *1922 supplement to "Black on Federal Taxes," January 1922.* Fourth edition. (Kansas City, Mo.: Vernon Law Book Co. 1922. Pp. 194.)

BUCK, A. E. *Budget making. A handbook on the forms and procedure of budget making with special reference to states.* (New York: Appleton. 1921. Pp. 234. \$3.)

COPPER, R. *L'impôt libérateur.* (Paris: Author, 66 Rue de la Rochefoucauld. 1922.)

ELY, R. T. *The taxation of land.* (Madison, Wis.: Author. 1922. Pp. 61.)

Reprinted from *Proceedings of the National Tax Association*, vol. XIV.

GRILLI, C. *Il protezionismo dopo la guerra.* (Rome: Author, Viala della Regina 86. 1921. Pp. 96.)

The author protests against the attempts at "protection" made by this country and Great Britain since the war. He attributes them to two causes: (1) the desire to foster key industries; and (2) to prevent "dumping." The reader may find it interesting to supplement the author's analysis of the latter by a study of the graphs representing the possibilities of "dumping" given by Barone in *Les Problèmes Actuels de l'Economie* (Paris, 1921). The author agrees with Marshall that in most cases a direct subsidy to an industry is less injurious to the common weal than a protective duty. He discusses and seems to approve Cassel's theory of "purchasing-power parities."

R. R. W.

HOUDAILLE, J. *La dette anglaise et la guerre de 1914.* (Paris: Jouvet et Cie. 1922.)

KIXMILLER, W. and BAAR, A. R. *1922 United States income and war tax guide based on Revenue act of 1921 and 1921 regulations.* (Chicago: Authors. 1921. Pp. 128.)

VON MEHRING, O. *Gedanken zur Reichsfinanzreform im Jahre 1921.* (Jena: Fischer. 1921. Pp. 94. 15 M.)

MOBERT, P. *Besteuerung und Volkswirtschaft.* (Karlsruhe: G. Braun. 1922. Pp. 105. 18 M.)

- NEEDHAM, R. W. *Income tax evasion: the taxpayer's position.* (London: Gee & Co. 1922. 2s.)
- NICOLAÏ, E. *Etude historique et critique sur la dette publique en Belgique.* (Brussels: M. Lamertin, M. Hayez. 1921. Pp. 458.)
- NORMAND, G. *L'abîme financier, en sortirons-nous?* (Paris: Maison Française d'Art et d'Édition. 1922. 7.50 fr.)
- POWELL, H. M. *Taxation of corporations and personal income in New York.* Vol. II, *Personal income.* Fourth edition. (New York: Boyd Press. 1922. Pp. xii, 436. \$6.)
- RHEINSTROM, H. and BAUCKNER, A. *Die direkten Reichssteuern.* (Leipzig: G. A. Glöckner. 1921. Pp. 116. 12 M.)
- ROSSMOORE, E. E. *Federal income tax problems—1922.* (New York: Dodd, Mead. 1922. Pp. xvi, 541. \$5.)
- SCHMIDT, P. H. *Der neue Zollltarif.* (Rorschach: E. Löpfe-Benz. 1921. Pp. 22.)
- SILBERT, C. *Federal income tax primer based on Revenue act of 1921 and on 1922 regulations.* (Boston: Financial Pub. Co. 1922. Pp. vii, 45.)
- TEILLARD, J. *Les emprunts de guerre.* (Paris: Alcan. 1922. Pp. 392. 25 fr.)
- VON KOCH, F. M. *On the theories of free trade and protection.* (London: King. 1922. 1s.)
- The city bond issues to be voted upon June 5, 1922. Vote "no" on both propositions.* (Chicago: Bureau of Public Efficiency. 1922. Pp. 11.)
- Committee on National Expenditure (Geddes Committee): First interim report; Second interim report; Third report.* (London: H. M.'s Stationery Office. 1922. 4s; 3s; 4s.)
- The Corporation Trust Company's 1921-1922 New York state income tax service.* (New York: Corporation Trust Co., 37 Wall St. 1921. \$30.)
- Handbuch der deutschen Ausfuhrabgaben-Kontrolle.* Vol. I. *Metallindustrie.* (Wittenberg: A. Ziemsen. 1922. Pp. 164. 50 M.)
- Internal revenue regulations no. 43, part I, relating to the tax on admissions under the Revenue act of 1921.* Revised, January, 1922. (Washington: Supt. Docs. 1922. 10c.)
- Labour and national "economy." A comprehensive and critical analysis of the Report of the Geddes Committee on National Expenditure and the government's policy on "economy."* (London: National Joint Council, 33 Eccleston Square. 1922. 6d.)
- The National Joint Council represents the General Council of the Trades Union Congress, the Executive Committee of the Labor party, and the Parliamentary Labor party.
- Law relating to the assessment and taxation of property in Indiana, the duties and powers of taxing officers, and an appendix containing forms and general information.* (Indianapolis, Ind.: State Board of Tax Commissioners. 1922.)

- National debt, liabilities of the state, estimated assets and exchequer balances, 1875-76 to 1920-21.* (London: H. M.'s Stationery Office. 1922. 9d.)
- New York state income tax law: practical questions and answers.* (New York: Irving National Bank. 1922. Pp. 46.)
- Prentice-Hall federal tax course.* (New York: Prentice-Hall. 1922. Pp. 274. \$6.)
- Report of the Special Joint Committee on Taxation and Retrenchment, submitted March 1, 1922.* (Albany: Committee. 1922. Pp. 383.)
- Revenue act of 1921.* (New York: Guaranty Trust Co. 1921. Pp. 220.)
- The Revenue act of 1921. Complete text, interleaved.* (New York: Equitable Trust Co. 1921. Pp. 235.)
- Tax reform in South Carolina.* Bull. no. 104. (Columbia, S. C.: Univ. of South Carolina, Extension Dept. 1922. Pp. 185.)
- Russia's foreign indebtedness. Correspondence with M. Krassin.* (London: H. M.'s Stationery Office. 1921. Pp. 6. 3d.)
- Taxes on tobacco, snuff, cigars, and cigarettes, and purchase and sale of tobacco.* Internal revenue decisions, regulations no. 8, revised February, 1922. (Washington: Supt. Docs. 1922. 10c.)
- Treasury decisions, under internal revenue laws of United States.* Internal revenue decisions, vol. XXIII, January to December, 1921. (Washington: Supt. Docs. 1922. \$1.50.)

Population and Migration

- The Immigration Problem. A Study of American Immigration Conditions and Needs.* By JEREMIAH W. JENKS, and W. JETT LAUCK. Fifth edition revised and enlarged by RUFUS D. SMITH. (New York: Funk and Wagnalls. 1922. Pp. xxvii, 655. \$3.00.)
- Immigration and Labor; the Economic Aspects of European Immigration to the United States.* By ISAAC A. HOURWICH. (New York: B. W. Huebsch, Inc. 1922. Pp. xxxii, 574. \$6.00.)

New editions have appeared of two important books on immigration, Jenks' and Lauck's *The Immigration Problem*, and Hourwich's *Immigration and Labor*. The former has long been recognized as the accepted semi-official digest of the *Report of the Immigration Commission*. It contains an interpretation of the data assembled by the commission which the commission itself did not have time to prepare. The present edition has been revised and brought up to date by Professor Rufus D. Smith, who is also primarily responsible for some important new chapters dealing with the immigration policies of other countries, the race problem of the Pacific, and the new temporary percentage restriction law.

The chapter on the immigration policies and legislation of other countries gives the student a much needed basis for comparing our

handling of immigration affairs with that of other nations whose problems are similar to ours in their broad features but differ in significant details. Heretofore it has been difficult to get concise data on this question in accessible form. So, too, the treatment of the race problem of the Pacific helps to broaden one's outlook on the subject, and to place the understanding of the question firmly on the basis of the essential principles involved. Particularly happy is the insistence that the problems of the relationships of diverse races are to be settled not on the basis of inferiority or superiority, but of difference.

In its new form this book will continue to be an invaluable handbook for all students of immigration. The authors have chosen wisely in saving space by omitting a considerable portion of the statistical matter in the appendix, which was of such a detailed character that it was not likely to be used by any students except those who could well enough resort to the commission's report itself.

The new portions of Dr. Hourwich's book consist mainly in a chapter on the lessons of the war and an addition to the appendix consisting of an answer to some of the criticisms of the first edition. The author's interpretation of the facts of the war may be briefly summarized as follows: During the war immigration was reduced to a negligible quantity; at the same time the real wages of the American laborer declined somewhat, due to the fact that prices rose faster and higher than money wages; therefore a cessation of immigration does not help the American wage-earner and immigration has no unfavorable effect on the standard of living of American labor. This argument is an example of the peculiar statistical method which runs through the whole book, and which justifies the reader in subjecting every conclusion to the closest scrutiny. Even assuming the correctness of the major premise with reference to the effect of the war on real wages—which is at least open to question in the light of such authoritative data as are presented in the recent study of the National Bureau of Economic Research—it is obvious that it is fallacious to draw conclusions with reference to normal conditions from the war period, when all social forces were upset, and the government, as Dr. Hourwich himself observes, "assumed the function of regulating wages in the leading industries." The same may be said of the author's answer to his critics. The methods used in replying to the criticisms of some reviewers of the first edition are exactly the same as those objected to by the reviewers in the volume itself. To point out the fallacy of these methods in their particular applications would be too extended a task for a brief review.

HENRY PRATT FAIRCHILD.

New York University.

NEW BOOKS

CALDWELL, A. B., editor. *History of the American negro*. Vol. V. Virginia edition. (Atlanta, Ga.: Caldwell Pub. Co. 1921. Pp. 630.)

EGIDI, P. *Ricerche sulla popolazione dell' Italia Meridionale nei secoli XIII. e XIV.* (Lucca: Baroni. 1920.)

SAVORGAN, F. *Demografia di guerra e altri saggi*. (Bologna: Zanichelli. 1921. Pp. 221. 12 l.)

During the war years and after, the author was a frequent contributor to various periodicals of articles on vital statistics, now reprinted in this volume. One of the longer of these articles discusses the forces which make for differences in the movement of population in different times and places. It serves as a kind of introduction to the rest. Several controversial articles on the nationality of peoples in the disputed Adriatic countries are so bound up with the contemporary war situation that the value of reprinting them may be questioned. A discussion of infant mortality during the year of the war is of more enduring interest. This also may be said of several of the nine succeeding short articles. They reveal, for example, the relative immunity of the English population from destructive war influences, the decline of the population of France, the continued expansion of the population of Italy.

R. F. FOERSTER.

Princeton University.

SUTHERLAND, H. G. *Birth control: a statement of Christian doctrine against the neo-Malthusians*. (New York: P. J. Kenedy. 1922. Pp. x, 160. \$1.75.)

Der Bevölkerungsrückgang in den tropischen Kolonien Afrikas und der Südsee. Seine Ursachen und seine Bekämpfung. (Ebenda. Pp. 96. 10 M.)

Increasing life span in the United States, 1901-1920. Statistical Bull., vol. III, no. 5. (New York: Metropolitan Life Ins. Co. 1922. Pp. 12.)

Immigración movimiento de pasajeros, Republica de Cuba, 1920. (Havana: Secretaria de Hacienda. 1921. Pp. 24.)

United States: composition and characteristics of the population. Fourteenth census of the United States, Department of Commerce, Bureau of the Census. (Washington: Supt. Docs. 1922. Pp. 42.)

Social Problems and Reforms

NEW BOOKS

AMES, E. W. and ARVIE, E. *Community civics*. (New York: Macmillan. 1921. Pp. 387. \$1.48.)

ATWOOD, W. H. *Civic and economic biology*. (Philadelphia: P. Blakiston's Son & Co. 1922. Pp. xv, 470.)

AYRES, L. P. *The Cleveland survey of the administration of criminal justice*. An address delivered before the City Club of Cleveland. (Cleveland, O.: Cleveland Trust Co. 1922. Pp. 23.)

- BRODERICK, J. T. *Pulling together*. (Schenectady, N. Y.: Robson & Adee. 1922. Pp. 141. \$1.)
- BURCH, H. R. and PATTERSON, S. H. *Problems of American democracy, political, economic, social*. (New York: Macmillan. 1922. Pp. x, 601.)
- CESTRE, C. *L'usine et l'habitation ouvrière aux Etats-Unis*. (Paris: Ernest Leroux. 1921. Pp. xxxvi, 301. 5 fr.)
- CHENERY, W. L. *Industry and human welfare*. (New York: Macmillan. 1922. Pp. xii, 169.)
- CLARK, W. I., JR. *Health service in industry*. (New York: Macmillan. 1922. Pp. ix, 168. \$2.)
- CLOPPER, E. N. *Rural child welfare. An inquiry by the National Child Labor Committee based upon conditions in West Virginia*. (New York: Macmillan. 1922. Pp. 355. \$3.)

Child welfare is the subject of a series of surveys made by the National Child Labor Committee, of which this is the first one dealing exclusively with the rural problem. It is based on conditions existing in West Virginia. The principal subjects handled are the Rural Home, Child Labor on Farms, Rural School Attendance, Dependency and Delinquency, Taxation and the Child, and Child Welfare Laws. The book is filled with much useful illustrative material and makes excellent summaries as well as recommendations for constructive work. The introductory chapter is a valuable statement of standards of child welfare, while the concluding chapter outlines a program of child welfare legislation.

That conditions in rural districts are in serious need of improvement is clearly demonstrated by the facts presented, and that an adequate program of constructive work has heretofore not been attempted is equally evident. The recommendations on the whole seem well adapted to the needs of the state, but it is unfortunate that the National Child Labor Committee should be sponsor for a statement such as the following in regard to the unmarried mother: "If the mother does not care to have the court declare the name of the father of her illegitimate child, it should remain undeclared forever." A number of valuable tables are given in the appendix. The survey should be valuable not only to West Virginia, but to other American states as well, in that conditions presented in the book are without doubt very similar to those that may be found in other parts of the country.

GEORGE B. MANGOLD.

- CURRY, C. F. *Alien land laws and alien rights*. H. R. doc. no. 89, 67 Cong., 1 Sess. (Washington: Supt. Docs. 1921. Pp. 85.)
- DART, H. M. *Maternity and child care in selected rural areas of the Mississippi*. Department of Labor, Children's Bureau, Rural child welfare series no. 5. (Washington: Supt. Docs. 1921. Pp. 60. 10c.)
- EDDY, S. *America: its problems and perils*. (New York: Doran. 1922. Pp. 30. 10c.)
- FARMER, G. L. *A form of record for hospital social work, including suggestions on organization*. (Philadelphia: Lippincott. 1921. Pp. 81.)
- FASTOUT, A. *Une politique financière*. (Paris: G. Crès. 1922. 4.50 fr.)

GROSZMANN, M. P. E. *Humanizing justice*. Public service series, no. 10. (Philadelphia: Municipal Court. 1922. Pp. 31.)

A brief study of the Municipal Court of Philadelphia under the auspices of the National Association for the Study and Education of Exceptional Children. The court is described as an object lesson and an inspiration. "It represents a coördinated system"; "its judges are in a measure the administrative and executive officers of the court"; "the entire machinery of the court procedure is a living organism rather than a mechanical device."

INMAN, S. G. *Problems in Pan Americanism*. (New York: Doran. 1921. Pp. xii, 415.)

KAHN, O. H. *A plea for prosperity*. (New York: Committee of American Business Men, 354 Fourth Ave. 1922.)

McKINNEY, J. and SIMONS, A. M. *Success through vocational guidance; occupation analysis*. (Chicago: American School, Drexel Ave. 1922. Pp. 270. \$2.)

MARCH, L. and others. *Problèmes actuels de l'économique*. (Paris: Colin. 1921. Pp. vi, 477. 20 fr.)

A number of economic questions in which the interest of the public has been aroused since the war are discussed by prominent Frenchmen in this collection of essays: the use of statistics by L. March; a statement of the marginal utility theory of value by J. Moret; the monetary situation in Europe by R. G. Hawtrey; "consumption" with some remarks on coöperation and production for use by C. Gide; "the rhythm of economic life" by A. Aftalion, whose analysis of crises and their recurrence suggests many of the points made by M. Bouniatian in *Les Crises Economiques*; syndicates and trusts by E. Barone, with some very interesting graphs explanatory of the possibility of combines and of "dumping." The remaining essays are by Rist, Lazard, Augé-Laribé and Dugé de Bernonville.

R. R. WHITEHEAD.

PLATT, C. *The psychology of social life; a materialistic study with an idealistic conclusion*. (New York: Dodd, Mead. 1922. Pp. 284. \$2.50.)

POUND, A. *The iron man in industry; an outline of the social significance of automatic machinery*. (Boston: Atlantic Monthly Press. 1922. Pp. xiv, 230.)

POUND, R. *Criminal justice in the American city—a summary*. (Cleveland, O.: Cleveland Foundation. 1922. Pp. viii, 94.)

REED, T. H. *Loyal citizenship*. (Yonkers, N. Y.: World Book Co. 1922. Pp. viii, 333. \$1.40.)

A book for training pupils for citizenship. Has chapters on "Social and Economic Fundamentals," including chapters on Coöperation in Work; Capital, the Partner of Labor; Getting Capital; the Function of Money; and Demand, Supply, and Competition.

RISLER, G. *La crise du logement*. (Paris: Plon-Nourrit & Cie. 1922. 2 fr.)

ROBINSON, C. C. *The find yourself idea; a friendly method of vocational guidance for older boys for the use of adult leaders*. (New York: Y. M. C. A. Press. 1922. Pp. viii, 184.)

- RYAN, J. A. and MILLAR, M. F. X. *The state and the church*. Written and edited for the Department of Social Action of the National Catholic Welfare Council. (New York: Macmillan. 1922. Pp. vi, 331.)
- SABSOVICH, K. *Adventures in idealism: a personal record of the life of Professor Sabsovich*. (New York: Author, Room 1715, 80 Maiden Lane. 1922. Pp. viii, 208.)
- SADDER, W. S. *Race decadence: an examination of the causes of racial degeneracy in the United States*. (Chicago: McClurg. 1922. Pp. x, 421.)
- WILLIAMS, E. H. *Opiate addiction; its handling and treatment*. (New York: Macmillan. 1922. Pp. xxv, 194. \$1.75.)
- Annual report of the Massachusetts Department of Public Welfare, 1920*. In three parts. Pub. doc. 17. (Boston: Dept. of Public Welfare. 1921. Pp. 151, 343, 107.)
- Child welfare laws of the state of Oregon*. Revised to include later amendments and laws, 1922. (Salem, Ore.: State Child Welfare Commission. 1922. Pp. 100.)
- A church and community survey of Pend Oreille County, Washington*. Committee on Social and Religious Surveys. (New York: Doran. 1922. Pp. vii, 51. 60c.)
- A half century of public health; jubilee historical volume of the American Public Health Association, in commemoration of the fiftieth anniversary celebration of its foundation*. Edited by M. P. RAVENEL. (New York: Am. Public Health Assoc. 1921.)
- Housing corporations in the United States. A brief report on the organization and methods of operation*. (New York: Metropolitan Life Ins. Co. 1922.)
- Illinois manual of laws affecting women and children*. Issued by the Juvenile Protective Association of Chicago. Compiled and revised by H. E. SMOOT. (Chicago: G. H. Seery & Co. 1922. Pp. 189.)
- Industrial home work of children. A study made in Providence, Pawtucket and Central Falls, R. I.* Department of Labor, Children's Bureau pub. no. 100. (Washington: Supt. Docs. 1922. Pp. 80. 10c.)
- List of bibliographies on crime and criminals*. (Washington: Library of Congress. 1922. Pp. 21.)
- A list of references on the housing problem*. Compiled by L. H. BOLANDER. (New York: Municipal Reference Library. 1922. Pp. 41.)
- Plan of New York and its environs. The meeting of May 10, 1922*. (New York: Russell Sage Foundation. 1922.)
- Promotion of the welfare and hygiene of maternity and infancy. Text of act of November 23, 1921, and maximum amounts available to the states*. U. S. Department of Labor, Children's Bureau pub. no. 95. (Washington: Supt. Docs. 1921. Pp. 5.)
- Report of the United States Interdepartmental Social Hygiene Board, for the fiscal year ended June 30, 1921*. (Washington: Supt. Docs. 1921. Pp. 198.)

Social hygiene education; report on a social-hygiene program given at Teachers College in the summer session of 1920. (New York: Teachers College, Columbia Univ. 1921. Pp. 22.)

Insurance and Pensions

NEW BOOKS

- BREWSTER, A. *The Brewster fire insurance digest.* (New York: Author. 1922. Pp. 78. 1922. \$1.)
- CHAMBERLIN, W. F. *Industrial relations management as affected by group insurance.* (Hartford, Conn.: The Travellers. 1922.)
- HURD, H. B. *Lectures on marine insurance.* Under the auspices of the Association of Underwriters and Insurance Brokers in Glasgow. (London: Effingham Wilson. 1922. 3s. 6d.)
- INGENHÜTT, H. *Das Viehversicherungswesen in der Rheinprovinz.* (Leipzig: Kurt Schroeder Verlag. 1922.)
- KELLER, M. *Die Behandlung des Kriegsrisikos in der Lebensversicherung unter dem Einfluss des Weltkrieges.* (Berlin: E. S. Mittler & Sohn. 1922. Pp. 88. 30 M.)
- LOUGE, J. *L'assurance maritime et les risques terrestres.* (Paris: Lib. Générale de Droit et de Jurisprudence. 1921. Pp. ix, 140.)
- MANES, A. *Versicherungswesen.* Vol. I—*Allgemeine Versicherungslehre.* Vol. II—*Besondere Versicherungslehre.* Third edition. (Leipzig: Teubner. 1922. Pp. xiv, 231; xiv, 357. \$3.70.)
- MAY, E. C. *A vision of life insurance.* (Peoria, Ill.: E. Hine & Co. 1921. Pp. 300.)
- PARKER, A. J., editor. *Insurance law of New York, being chapter 28 of the Consolidated Laws, and chapter 33 of 1909 including all amendments of 1921.* (New York: Banks Law Pub. Co. 1922. Pp. 506. \$6.)
- RAMSAY, W. T. and TEAD, O. *Report of investigation into the operation of the British Health Insurance act.* (New York: Tead, O., N. Y. School of Social Work. 1922. Pp. 47.)
- SCHNEIDER, W. R. *The law of workmen's compensation, rules of procedure, tables, forms, synopses of acts.* (St. Louis, Mo.: Thomas Law Book Co. 1922.)
- STEVENSON, J. A. *Selling life insurance.* (New York: Harper. 1922. Pp. xi, 296.)
- Insurance code of Arizona.* (Phoenix, Ariz.: Corporation Commission, Insurance Dept. 1922.)
- List of recent references on unemployment insurance.* (Washington: Library of Congress, Div. of Bibliography. 1921. Pp. 12.)
- Ordinances governing pensions of civil employees.* (Providence, R. I.: Legislative Reference Bureau. 1922. Pp. 6.)
- Workmen's compensation act of the state of Indiana, reprinted April, 1921, with amendments, supplementary acts and annotations; of Missouri,*

effective Sept. 1, 1921; of New Mexico, revised with amendments, April, 1921, amendments effective June 11, 1921. (New York: F. R. Jones, 80 Maiden Lane. 1921. Pp. 43, 40, 32. 75c, 75c, \$1.)

Socialism and Co-operative Enterprises

Socialism: an Analysis. By RUDOLF EUCKEN. Translated by JOSEPH McCABE. (New York: Charles Scribner's Sons. 1922. Pp. 188. \$2.75.)

After all these years of heated controversy it has remained for the philosopher to write the most searching and effective criticism of the socialist ideal. Professor Eucken does not pretend to be an economist, and does not write in the language of economics, but he shows that back of its outward aspects socialism comprises an ideal of life which it is within the province of the philosopher to analyze.

The first half of the book is devoted to a statement of the socialist ideal which is eminently fair, and which presents socialism in a very favorable light. The philosophical criteria by which this ideal must be judged are then outlined in a short chapter, after which the ideal is subjected to critical examination, as to (1) the unity and harmony of life, (2) the socialist idealism, (3) the socialist conception of history, (4) the limits of socialist equality, (5) the problem of socialization, and (6) a criticism of economism. Under the first two heads Professor Eucken finds socialism too superficial. It is unable to give life a sufficient meaning and value. Its conception of history is inadequate. Its equality is in danger of becoming injustice and bringing about a condition without spirituality or culture. Socialism has no inner power to bind men in socialization, therefore the structure "must fall apart and end in a struggle of each against all." The economic task cannot be taken as the greatest of all without injuring and stunting man's inner life. "The external would dominate the internal." In short the fundamental weakness of socialism is its materialism and its reliance on economic conditions. It has been valuable to society as a criticism of existing evils but it is lacking on the constructive side.

It is of course Marxian socialism which Professor Eucken thus condemns. There are perhaps outside of Germany some schools of socialist thought which would not merit such severe condemnation, but the challenge is so vigorous that all forms of socialism are put on the defensive.

G. B. L. ARNER.

NEW BOOKS

BEBEL, A. and BERNSTEIN, E. *Der Briefwechsel zwischen Friedrich Engels und Karl Marx, 1844 bis 1883.* Four vols. 1922. 100 M.)

BRAND, E. and WALECKI, H. *Der Kommunismus in Polen. Drei Jahre*

- Kampf auf vorgeschobenem Posten.* (Hamburg: Carl Hoym Nachf. 1921. Pp. 85. 4 M.)
- DE LEON, D. *La reconstrucción socialista de la sociedad (el voto industrial).* (New York: El Partido Socialista Obrero. 1922. Pp. 75.)
- DELL, R. *Socialism and personal liberty.* (New York: Thomas Seltzer. 1922. Pp. 160. \$1.75.)
- DOUGHTY, W. H., JR. *Socialism and the average man.* (New York: Putnam. 1922. Pp. xiii, 238. \$2.50.)
- HOPKINS, O. T. *Working expenses in retail distributive coöperative societies.* (Manchester: Co-operative Union. 1921. Pp. 38. 1s. 6d.)
- JÁSZI, O. *Erwin Szabó und sein Werk.* (Leipzig: Archiv. f. d. Geschichte des Sozialismus u. der Arbeiterbewegung. 1921.)
- KNIEF, J. *Lassalle.* (Leipzig: Archiv. f. d. Geschichte des Sozialismus u. der Arbeiterbewegung. 1921.)
- LENZ, F. *Kant und Marxismus. Grundlegung und Kritik der Marxist.* (Stuttgart: S. Cottasche Buchhandlung Nachf. 1921. Pp. 175. 16 m.)
- LIEFMANN, R. *Die kommunistischen Gemeinden in Nordamerika.* (Jena: Fischer. 1922. Pp. 95. 12 M.)
- MAYER, G. *Neue Beiträge zur Biographie von Karl Marx.* (Leipzig: Archiv f. d. Geschichte des Sozialismus u. der Arbeiterbewegung. 1921.)
- MORIZET, A. *Chez Lénine et Trotsky, Moscou, 1921.* (Paris: La Renaissance du Livre. 1922. 7 fr.)
- REPKA, W. *Die Sozialisierung des Reiches.* (Hamburg: Unionverlag. 1921. Pp. 100.)
- SASS, A. *Marx' Beziehungen zu Bartholomäus von Szemere.* (Leipzig: Archiv f. d. Geschichte des Sozialismus u. der Arbeiterbewegung. 1921.)
- SAVAGE, M. D. *Industrial unionsim in America.* (New York: Ronald Press Co. 1922. Pp. 344. \$2.25.)
- STURT, H. *Socialism and character.* (London: Allen & Unwin. 1922. Pp. 214. 7s. 6d.)
- WIZNITZER, A. *Marx und die irische Frage.* (Leipzig: Archiv f. d. Geschichte des Sozialismus u. der Arbeiterbewegung. 1921.)
- Coöperation; a selected bibliography.* Bull. no. 48. (New York: Russell Sage Foundation. 1921. Pp. 4.)
- Coöperative congress 1919 and 1920. The fifty-first and the fifty-second annual congress.* (London: Co-operative Union. 1921. Pp. xl, 814; xl, 824.)

Statistics and Its Methods

Wealth and Taxable Capacity. By SIR JOSIAH STAMP. (London: P. S. King & Son. 1922. Pp. 195. 10s 6d.)

In a manner both scientific and readable this collection of lectures analyzes the recent wealth and income statistics of the United Kingdom. Dr. Stamp's evident familiarity with the available data is re-

vealed so clearly that the reader is at once given confidence in the conclusions reached.

The discussion of the value of the national wealth points out simply and clearly the different definitions which may be applied to this concept and the wide discrepancies in the results obtained by following these various definitions. In only one respect does Dr. Stamp's analysis appear to be materially incomplete. He fails to show that the value attached to the tangible wealth, since it is necessarily derived from the interaction of subjective estimates, is wholly psychological; and hence may change greatly with waves of optimism or pessimism, even though no change occurs in the stock of physical goods on hand. While the device of multiplying income by some constant factor is a most useful method of obtaining a first approximation to a total of physical wealth, the fact should be more clearly brought out that this procedure gives a result which is likely to differ much from the current value placed upon the total existing stock of goods.

The picturing of the annual national income as a great heap of goods against which individual income recipients are constantly being given claim checks is a very forceful way of presenting to the public a much misunderstood phenomenon. The difficult question of dealing with interest on loans for consumption purposes is less adroitly handled. The author apparently overlooks the fact that the borrower, by obtaining goods when he wishes them, may thereby gain an additional service equalling in value the interest that he pays. Is it not reasonable to include the value of this additional service in the total of the national income? In his discussion of tax payments Dr. Stamp nowhere touches upon what seems to be the crux of the whole matter: namely, the fact that the government gives in return for taxes two kinds of services; assistance to business and direct consumption goods. Evidently, the tax bill covering the first class of services is deductible from the total of individual incomes; while taxes going to buy direct enjoyment, as for example the use of city water or parks, are no more deductible than are payments for groceries or theatre tickets. He also seems to overlook the fact that the victory over Germany was largely a service of the latter class.

In enumerating various methods of measuring the national income, the author does not mention that one which is perhaps the easiest: namely, that of ascertaining the total payments by industries to individuals made in such forms as wages, salaries, rents, interest, dividends, etc.

The recent studies made by Mr. Frederick Macaulay seem to indicate that Pareto's so-called law is entitled to somewhat less confidence than that given to it by Dr. Stamp, even though it doubtless has distinct merit as a means of detecting gross errors.

The conclusion reached that the slope of the curve representing distribution of income has remained much the same for 120 years is one of the most interesting things in the book. It is distinctly in harmony with the evidence previously cited by the present reviewer of the general tendency of the distribution of wealth to be very similar at widely separated times and in different countries. Is there, then, a "natural law" of distribution of wealth and income based upon the distribution of human ability? Another conclusion of importance is that the net savings of the British people tend to be about one sixth of their total income. This fraction corresponds very closely to a recent estimate for the United States made by the present reviewer.

The analysis of the forces affecting the taxable capacity of a nation is one of the chief contributions of the book and is well worthy of the attention both of economists and of students of public finance, as is also the chapter on "The effect of changing price levels upon profits and wages." This last section would be strengthened slightly were the fact brought out that wholesale prices are affected largely by optimism and pessimism concerning the business outlook as well as by changes in the quantity of the medium of exchange.

On the whole, this book, whether considered from the theoretical point of view or merely in respect to the statistics pertaining to the United Kingdom, is entitled to rank with the best of works dealing with wealth and income and their relation to taxation.

WILLFORD I. KING.

National Bureau of Economic Research.

NEW BOOKS

BODDINGTON, A. L. *Statistics and their application to commerce.* (London: H. Foulks Lynch & Co. 1921. Pp. xv, 220.)

DAVIES, G. R. *Introduction to economic statistics.* (New York: Century Co. 1922. Pp. vi, 163.)

This latest addition to the rapidly increasing number of elementary texts on statistical method is written to meet the demand of those who desire to teach the subject in conjunction with economic problems and to have text and laboratory exercises combined in one volume. For the teacher who is compelled to give a hasty review of statistics in a single semester, with only a meager amount of time available for laboratory work, such a text has distinct advantages and this type of demand is so common that the book will doubtless serve a large constituency.

The amount of space devoted to the study of abstract basic principles has been reduced to a minimum and the student is introduced almost at once to the field of practical problems. As a rule, these are well set forth, though in some instances clarity has been sacrificed to brevity. That important subject, the correct method of constructing table forms, has been passed over very lightly and the student is soon introduced to frequency tables and averages. The bulk of the work is devoted to the treatment of historical data, much space being given to index numbers of

wages and prices. Descriptions of the methods involved are frequently illustrated by examples of existing price index series. The ways in which these indices are derived are explained admirably but the principles underlying the different types of index numbers are not always so clearly set forth.

The reviewer regrets to see Professor Davies endorse the Chinese-like plan of putting the last date first and the rather unscientific procedure of forcing percentages to add up to 100. Another feature of the book which is subject to criticism is the form of the charts. The numbers on the vertical scales are frequently misplaced and scale titles are often either missing or inadequate. The discussion of the methods used in determining the trends of historical variables is characterized by unusual simplicity and clarity. Just what the trend is intended to portray is not, however, so clearly brought out. The treatment of correlation likewise is strong in description of the process but somewhat weak in analysis of the fundamental principles involved. The book includes clear directions for laboratory practice, an admirable bibliography, and a simple table of squares and cubes with the corresponding roots. It also contains no inconsiderable amount of valuable statistical data. On the whole, the work reflects distinct credit on its author.

WILLFORD I. KING.

DAY, E. E., editor. *Statistical record: 1921. Monthly data.* Review of Economic Statistics, Supplement, April, 1922. (Cambridge: Harvard Econ. Service. 1922. Pp. 141.)

FISHER, A. *The mathematical theory of probabilities and its application to frequency curves and statistical methods.* Vol. I, *Mathematical probabilities, frequency curves, homograde and heterograde statistics.* Second edition, greatly enlarged. (New York: Macmillan. 1922. \$5.)

GILBRETH, F. B. and GILBRETH, L. M. *Process charts.* Presented at the annual meeting of the American Society of Mechanical Engineers, December, 1921. (Montclair, N. J.: F. B. Gilbreth, 58 Eagle Rockway. 1922. Pp. 17.)

LAPLACE, P. S. *Essai philosophique sur les probabilités.* (Paris: Gauthier-Villars. 1922. 6 fr.)

PERSONS, W. M. *Interpretation of the index of general business conditions.* (Cambridge: Harvard Econ. Service. 1922. Pp. 11.)

SAITZEW, M. *Die Motorenstatistik, ihre Methode und ihre Ergebnisse. Eine Studie aus dem Gebiete der internationalen Wirtschaftsstatistik.* (Zürich: E. Rascher. 1922. Pp. vii, 275.)

SYMIAUD, F. *Statistique et expérience. Remarque de méthode.* (Paris: Rivière. 1922.)

ZUCKERMANN, S. *Statistischer Atlas zum Welthandel.* Part I. *Text und Tabellen.* Part II: *Graphische Tafeln.* (Berlin: O. Elsner. 1922. Pp. xvi, 191; 156. 600 M.)

Age-grade and nationality survey by the Bureau of Statistics and Reference. Research bull. no. 7. (Detroit, Mich.: Detroit Educational Bulletin, Bd. of Education. 1922. Pp. 27.)

Empire du Japon pendant l'an VII de Taisho—1918. Statistique des causes de décès de l'Empire. Vol. I—Fu, Ken et Hokkaido ou districts.

- Vol. II—*Shi et Ku ou grandes cités de plus de 50,000 inhabitants.* (Tokio: Dept. Impérial de Recensement. 1921. Pp. vi, 493; ii, 335.)
- Official year book of the Commonwealth of Australia, 1901-1920.* No. 14. (Melbourne: Commonwealth Bureau of Census and Statistics. 1921. Pp. xxxviii, 1228.)
- Results of a census of the Dominion of New Zealand, April 17, 1921.* Part I, *Population.* With appendices A, B, C, D, E, and F. (Wellington: Census and Statistics Office. 1921. Pp. 91, 15, 15, 12.)
- Resúmenes del censo de las Provincias de Lima y Callao, 1920.* (Lima, Peru: Imp. Tonne Aguinne. 1921. Pp. 200.)
- Statistical abstract of Peru, 1920.* (Lima: Bureau of Statistics. 1921. Pp. 133.)
- Statistics of private commercial and business schools, 1919-1920.* Bureau of Education, bulletin, 1922, no. 4. (Washington: Supt. Docs. 1922. Pp. 11. 5c.)
- Statistics of railways in the United States, 1919.* (Washington: Interstate Commerce Commission. 1922. Pp. 819.)
- Statistisk aarbog 1921. Udgivet af det Statistiske Departement.* (Copenhagen: Gyldendalske Boghandel. 1922. Pp. xxiv, 236. 2 Kr.)
- Statistical year book of Quebec, 1921.* (Quebec: Bureau of Statistics. 1921. Pp. vii, 576.)
- Statistisk Årsbok för Finland ny serie Nittonde Årgången, 1921.* (Helsingfors: Statsrådets Tryckeri. 1921. Pp. 294.)
- Trade of the United States in 1921 stated in the international statistical classification.* (Supplement to Commerce Reports, Department of Commerce, July 12, 1922. Trade information bull. no. 30. (Washington: Bureau of Foreign and Domestic Commerce. 1922. Pp. 9.)
- United States life tables, 1890, 1901, 1910, and 1901-1910. Explanatory text, mathematical theory, computations, graphs, and original statistics, also tables of United State life annuities, life tables of foreign countries, mortality tables of life insurance companies.* Issued by the Bureau of Census. (Washington: Supt. Docs. 1922. \$1.25.)
- Western Australia statistical register for the year 1920-1921 and previous years.* Part II and III: *Public finance and accumulation*; V: *Land settlement, agriculture, live stock, and meteorological statistics*; VI: *Industrial establishments (exclusive of mines)*; VII: *Mineral statistics and water conservation.* (Perth: Fred W. Simpson. 1922. Pp. 16, 71, 23, 11.)
- Die Wirtschaftskurve. Mit Indexzahlen der Frankfurter Zeitung.* (Frankfurt: Verlag der Frankfurter Societätsdruckerei. 1922. Pp. 80. 15 M.)
- Year book of the state of Indiana, 1921.* (Indianapolis, Ind.: Governor's Office. 1922. Pp. 1213.)

PERIODICALS

The REVIEW is indebted to Robert F. Foerster for abstracts of articles in Italian periodicals, and to R. S. Saby for abstracts of articles in Danish and Swedish periodicals.

Economic History (United States)

(Abstracts by Amelia C. Ford)

- APFLEGATE, L. *Notes and reminiscences of laying out and establishing the old Emigrant Road into South Oregon in the year 1846.* Ore. Hist. Soc. Quart., Mar., 1921. Pp. 34. Relates hardships and Indian dangers endured while blazing out a route to the Far West; refers to opposition from the Hudson Bay Co.
- ARNESON, E. P. *The Bryan-Hayes correspondence; early irrigation in Texas.* Southwestern Hist. Quart., Oct., 1921.
- BUFFINGTON, A. H. *The policy of Albany and English westward expansion.* Miss. Valley Hist. Rev., Mar., 1922. Pp. 40. Discusses the methods of the Albany fur traders in the 17th century; believes these Dutch burghers were in a position to strike for the fur trade of the continent had they had imagination and willingness to take risks.
- BURNHAM, G. H. *Economic effects of New England's ice storm.* Journ. of Geog., May, 1922. Pp. 9. Tells of the havoc wrought on all forms of wire service in the vicinity of Worcester, Mass., and how the damage was repaired.
- CONNOLLY, J. C. *Quitrents in colonial New Jersey as a contributing cause for the American Revolution.* Proc., N. J. Hist. Soc., Jan., 1922.
- COTTERILL, R. S. *The beginnings of railroads in the Southwest.* Miss. Valley Hist. Rev., Mar., 1922. Pp. 9. Describes the efforts of rival southern cities in the 30's to tap the New Orleans' trade with the west, and the resultant railroad schemes.
- GRAHAM, F. D. *International trade under depreciated paper: the United States, 1862-79.* Quart. Journ. Econ., Feb., 1922. Pp. 54. A statistical study of prices in the U. S. during the greenback period; a test and substantial verification of Professor Taussig's theory as to international trade under depreciated currency.
- HARLAN, E. R. *Transportation in Iowa before the railroads.* Annals of Iowa, July, 1921. Pp. 7. Describes the course followed by early travel in Iowa, particularly the Mormon Trail; includes an advertisement of the ferry at Council Bluffs.
- HATCHER, M. A. *Conditions in Texas affecting the colonization problem, 1795-1801.* Southwestern Hist. Quart., Oct., 1921.
- JILLSON, W. R. *A history of the coal industry in Kentucky.* Register of Ky. State Hist. Soc., Jan., 1922. Pp. 25. Outlines the development of the coal mines, labor troubles, improvements in mining methods, markets, statistics of annual production. Illustrated.
- KUYKENDALL, R. S. *An American shipbuilder for Spanish California.* Hispanic Am. Hist. Rev., Feb., 1922. Pp. 3. Tells of a contract made in 1788 with a master shipbuilder of Boston to go to the Californias and of the rejection of this "foreigner" by the viceroy who demanded a shipbuilder from Spain since none was to be had in Havana.
- MARTIN, H. C. *Provincial, continental, and federal revenues of Lancaster County.* Papers read before the Lancaster Co. Hist. Soc., Feb., 1921.
- MEIMA, R. C. *A forgotten city.* Mich. Hist. Mag., July-Oct., 1921. Pp. 13. Tells of the outlay in 1835-37 of vast sums to construct on Pigeon River, Michigan, a metropolis for the whole Mississippi Valley, and of the ruin of the scheme.

- MORRISON, A. J. *Virginia Indian trade to 1673*. William and Mary College Quart. Hist. Mag., Oct., 1921.
- MURDOCK, F. R. *Some aspects of Pittsburgh's industrial contribution to the World War*. Western Penn. Hist. Mag., Oct., 1921.
- O'HARRA, C. C. *Some early pictures of the Black Hills Country*. Pahasapa Quart., published by the So. Dakota School of Mines, Feb., 1921. Pp. 9. An important function of the Custer expedition of 1874 was the search for gold; gives a picture of the first quartz mill brought into the Black Hills, Sept., 1876. The mill is described by Capt. C. V. Gardner in the *Deadwood Times*, August, 1888.
- PEATIE, R. *Hunting oil in Oklahoma*. Atlantic Mo., May, 1922. Pp. 12. Describes living conditions in the oil country and certain aspects of the oil business.
- SCHAFER, J. *The microscopic method applied to history*. Minn. History Bull., Feb.-May, 1921. Pp. 18. Sets forth the plan of writing a pioneer history of every township in Wisconsin, with plates showing the farms and their owners from the beginning up to 1870.
- _____. *Wisconsin's Farm Loan law, 1849-1863*. Proc. Wis. State Hist. Soc., Oct., 1920. Pp. 36. A comprehensive discussion of the state's policy in handling its school lands and the funds arising from their sale during 1849-1863; a loan feature in this policy worked hardships and losses.
- SEARS, L. M. *The middle states and the embargo of 1808*. So. Atlantic Quart., Apr., 1922. Pp. 18. Analyzes the attitude of each of the middle states towards the embargo—a median attitude, on the whole; considers the conflict of sentiment in Philadelphia offers an important clue to the sources of national action during the embargo period.
- SHARP, M. J. *The M. & M. Railroad*. Palimpsest, Jan., 1922. Pp. 15. Sketches the building of the Mississippi and Missouri Railroad in Iowa, 1854-55, and its final fall into a receiver's hands.
- SIMPSON, C. *Reminiscences of early Pittsburgh*. Western Penn. Hist. Mag., Oct., 1921.
- STROBEL, H. F. *Coal and other things*. Stone & Webster Journ., June, 1922. Pp. 21. Sketches the two chief matters at issue in the coal miners' strike, the character of our bituminous coal resources, and methods of working the mines.
- An early description of Pennsylvania*. A letter written in 1724 by Christopher Sower, describing a voyage from Europe and conditions in Philadelphia and vicinity. Penn. Mag. Hist. & Biog., July, 1921. Pp. 12. Includes facts as to wages, house rent, prices of commodities in Philadelphia in 1724.
- Diary of a journey through Massachusetts, Vermont, and New York in 1800*. Vt. Hist. Soc., Proc. for 1919-1920.
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- HEILMAN, R. *Valuation of public utilities.* Aera, July, 1922. Pp. 9. One of a series of articles, intended for electric railway employees, dealing with various aspects of utility regulation and operation.
- JOHANNSSEN, F. *Drift af offentlige Virksomheder.* Nat. øk. Tids., no. 1, 1922. Pp. 26. In the management of state enterprises honest business methods must be followed and not ordinary political methods.
- JOHNSON, G. A. *The business of water-works management.* Am. City, May, June, 1922. Pp. 3, 3. Brief treatment of water rates.
- MCBRIDE, R. S. *Important trends in gas industry.* Gas Age-Record, June 10, 1922. Pp. 3. Statistics for 1920, showing magnitude and scope of gas industry.
- P. A. M. *The constitutionality of emergency legislation under the police power.* Pa. Law Rev., Nov., 1921. Pp. 3. The United States Supreme Court, in *Block v. Hirsh*, 1921, has held that legislation resulting in the regulation of private property "affected with a public interest" (in the instant case, rented real estate) may be constitutional when enacted for an emergency only.
- MEES, C. A. *Economics of water-power development.* Mech. Engg., July, 1922. Pp. 4. An illuminating consideration, by an engineer, of factors involved in the production and sale of water power, including effects of regulation.
- MURPHY, E. J. *Operating conditions improving.* Aera, May, 1922. Pp. 7. Net income of 180 companies, representing approximately one-half of the earning power of the electric railway industry, increased 186 per cent in 1921 over 1920 and operating ratio declined 4.1 per cent. Average rate of fare increased from 6.7 cents to 7.3 cents or 9 per cent.
- W. H. N. *Jurisdiction of public service commissions over inter-utility contracts.* Pa. Law Rev., Nov., 1921. Pp. 3. Jurisdiction over such contracts depends on whether or not it is held that the public interest is adversely affected by them.
- PARSON, F. W. *You and the public utilities.* World's Work, May, 1922. Pp. 8. The magnitude and importance of public utilities entitle them to a real public appreciation of their problems and needs.

- REED, D. A. *How a municipal plant kept down the cost of gas and water.* American City, Apr., 1922. Pp. 3.
- RICHBERG, D. R. *A permanent basis for rate regulation.* Yale Law Journ., Jan. 1922. Pp. 20. Valuation can be only a reflection of earning power. The essential consideration in utility regulation is the value of the service. This in turn is to be measured by the cost of producing the service. The latter furnishes a definite basis of rate regulation, inasmuch as it consists simply of operating costs plus the prevailing return on the capital necessarily invested.
- ROGERS, S. *A new golden age in Philadelphia.* Outlook, Apr. 12, 1922. Pp. 3. Interesting account of success of Mitten administration of Philadelphia street railways, particularly in securing maximum cooperation of employees.
- SIBLEY, R. *California should profit by experience of Ontario.* Journ. of Electricity, Mar. 15, Apr. 1, 15, 1922. Pp. 5, 3, 3. Comparison of results achieved by Ontario Hydro-electric Power Commission and those achieved by private enterprise in California in last twenty years held to be unfavorable to former.
- SIMPSON, J. *Recent cases on rates and return.* Gas Age-Record, Apr. 22, 1922. Pp. 3. Digest of recent cases.
- SIMPSON, N. W. *Missouri utility commissioner praises state regulation of public service corporations.* Pub. Service Mag., July, 1922. Pp. 2. State regulation should be put on a firmer constitutional basis. Prudent investment basis of valuation upheld.
- DEL VALLE, C. *Municipalización de servicios públicos.* Revista de Ciencias Económicas, Feb., 1922. Pp. 19. Description of municipal functions, including those commonly performed by public utilities in this country, and discussion of principles guiding the exercise of them.
- All Detroit lines now municipally owned.* Elec. Ry. Journ., May 20, 1922. Pp. 3.
- Commission rebukes political interference.* Pub. Service Mag., May, 1922. P. 1. California Railroad Commission shows that successful regulation requires absolute fairness to utility as well as to the public.
- Feustel Philadelphia valuation presents valuable analytical and cost data.* Elec. Ry. Journ., June 13, 1922. Pp. 4. City expert favors historical investment as against reproduction cost. Valuation and historical data presented.
- Lower court is upheld in Galveston fare case.* Elec. Ry. Journ., Apr. 29, 1922. Pp. 4. Text of recent decision of United States Supreme Court, in which several important developments in utility regulation were made, particularly with reference to allowance for going-concern value.
- Measuring the service in Memphis.* Elec. Ry. Journ., May 13, 1922. Pp. 4. Description of operation of Memphis service-at-cost franchise, particularly its prescription of service standards.
- Suggestion that taxpayers share cost of improvements.* Elec. Ry. Journ., May 27, 1922. Pp. 2.)
- Zone passes for Beaver Valley.* Elec. Ry. Journ., Apr. 22, 1922. Pp. 3. Description of use of weekly passes in connection with a zone system of fares.

Accounting

(Abstracts by Martin J. Shugrue)

- BELL, W. H. *Depreciation and retirement of property.* Journ. Account., Apr., 1922. Pp. 6. The proper accounting entries to make when a machine or other fixed asset is retired from use.
- COMEY, R. H. *Why I consider costs basic in shaping my policies.* Factory, Apr., 1922. Pp. 3. Costs are at the root of practically all sound business policies.

- ESTCOURT, R. *Income in the United States*. Annalist, May 8, 1922. Pp. 2. Discusses work of the National Bureau of Economic Research on the problem of the amount and distribution of income in the United States.
- HAUGH, L. C. *Inventories and their valuation for income tax purposes*. Administration, June, 1922. Pp. 5. Practical discussion of questions and problems involved in inventory appraisals for tax purposes.
- HURLEY, R. E. *A budget plan which controls costs*. Factory, Apr., 1922. Pp. 2. Believes the budget system with necessary changes can be applied to any plant. Describes an actual system.
- JACKSON, J. H. *Treatment of redemption funds*. Journ. of Account., June, 1922. Pp. 14. How to handle accounts for funds created to redeem debts and callable stocks or to provide for depreciation.
- LEVIN, S. B. *Simplified manufacturing accounts*. Administration, Feb., 1922. Pp. 17. Primarily for the so-called small manufacturer whose business does not warrant an augmented office force or system involving minute detail. Illustrated with many forms.
- LOWE, H. I. *Method of procedure in export accounting*. Pace Student, May, 1922. Pp. 4. Description of an accounting system for an export house.
- MANNING, A. B. *Fixed property accounting*. Administration, Apr., 1922. Pp. 8. Concerned with the rates and method as well as the kinds of depreciation. Contains a schedule of normal depreciation rates for various items of property.
- MOLER, A. L. *The accountant's report*. Administration, Feb., 1922. Pp. 11. What the accountant's report should show the banker.
- NOLE, O. *Accounting procedures for steamship companies*. Pace Student, Apr., 1922. Pp. 2.
- O'HARA, J. L. *Industrial depression and cost manipulation*. Administration, May, 1922. Pp. 14. Many recent proposals to modify arbitrarily cost figures are unsound and are made simply for the purpose of bringing costs into alignment with market prices.
- PERKINS, L. *Plant accounts in invested capital*. Journ. Account., May, 1922. Pp. 7. Problems involved in computing invested capital for purposes of federal taxes.
- PIPER, A. A. *Accounts of cotton hosiery manufacturers*. Journ. Account., May, 1922. Pp. 5.
- POLAKOV, W. N. *Distributing overhead to allow lower sales prices*. Factory, Apr., 1922. Pp. 3. Some concrete examples of how to figure overhead in determining sales price.
- ROBERTS, C. C. *Planning an audit of an industrial*. Journ. Account., Apr., 1922. Pp. 12. Outline of procedure to be followed.
- SALIERS, E. A. *Production method of charging depreciation*. Administration, May, 1922. Pp. 4. Advocates varying depreciation rates for different quantities of production but points out that depreciation can safely be diminished only within rather narrow limits.
- SUFFERN, E. L. *Municipal accounting in New Jersey*. Journ. Account., May, 1922. Pp. 9. New Jersey is trying to establish a system of uniform accounting for all municipalities. Results of last five years' work set forth.
- SWARTHOUT, A. V. and BEXELL, J. A. *A system of accounting for cotton ginneries*. U. S. Dept. Agr. Bul. 985 (1921). Pp. 42.
- TRISKO, F. B. *Cost systems for road building*. Administration, June, 1922. Pp. 6. How properly to classify and record costs on highway construction.

WIEGAND, W. B. *Fire insurance company accounting*. Administration, June, 1922. Pp. 10. Illustrated with statement forms and samples of books of record. Difficulties in obtaining uniform system.

WILLIAMS, J. H. *A technique for the chief executive*. Bull. Taylor Soc., Apr., 1922. Pp. 22. A definite responsibility—a definite procedure—a definite measure of results. Deals with budgets, forecasts, quotas, and unit costs. Concretely illustrated.

Some bank credit problems. Bankers Mag., May, 1922. Pp. 3. Questions and answers dealing with meaning of working capital, and method of handling in the credit statement quick assets which have been pledged.

What the banker expects from the accountant. Bankers Mag., Apr., 1922. Pp. 8. Sets forth very concretely why many audited statements are inadequate or misleading and fail to serve the banker who wants his facts straight.

Business Management

BARTLETT, M. B. *A workable organization plan for the small plant manager*. Factory, June, 1922.

BENNETT, G. E. *The budget*. Construction Accounting, 1920. Pp. 17.

FRAZER, G. E. *Budget control*. Bull. Taylor Soc., June, 1922.

GILBERTH, F. B. and L. M. *Superstandards*. Bull. Taylor Soc., June, 1922.

GOODWIN, J. P. *Gross profits as a basis of sales commissions*. Administration, June, 1922.

HOLCOMBE, J. M., JR. *A case of sales research*. Bull. Taylor Soc., June, 1922.

JACKSON, W. M. *Organization of the personnel*. Administration, June, 1922.

MINTY, L. *American methods of recruiting, training and promoting bank personnel*. Journ. Inst. Bankers, May, 1922.

WAYMAN, E. L. *The factory cure for slow sales*. Factory, June, 1922.

WEBER, C. O. *The psychology of employment*. Administration, June, 1922.

WHITTEN, H. J. *Buying for a medium-size manufacturing establishment*. Administration, June, 1922.

A budget that meets the test of changing volume. Factory, June, 1922.

Labor and Labor Organizations

(Abstracts by David A. McCabe)

ATKINS, W. E. *The personnel policies of the A. Nash Company*. Journ. Pol. Econ., Apr., 1922. Pp. 17. A description of and appraisal of the results of the labor policies of the company.

BAIN, H. F. *Accident prevention by the United States Bureau of Mines*. Intern. Rev., May, 1922. Pp. 8. Author is Director of the Bureau.

BLANKENHORN, H. *After West Virginia—Somerset*. Survey, May 13, 1922. Pp. 3.

———. *Liberty and union in the coal fields*. Nation, May 17, 1922. Pp. 3. The coal strike and attempts to defeat it, in Somerset county, Pennsylvania.

CALLAHAN, D. F. *Criminal syndicalism and sabotage*. Mo. Labor Rev., Apr., 1922. Pp. 9. Recent American statutes and court decisions.

CHEN, TA. *Shipping strike in Hong Kong*. Mo. Labor Rev., May, 1922. Pp. 7.

CLARK, E. *Textile force vs. textile facts*. Nation, Apr. 19, 1922. Pp. 2. Favorable to the New England textile strikes.

- COMMONS, J. R. *Tendencies in trade union development in the United States*. Intern. Lab. Rev., June, 1922. Pp. 32.
- CONYNGTON, M. *Building Trades-Unions' Construction and Housing Council of Boston*. Mo. Labor Rev., May, 1922. Pp. 4.
- DERRY, K., and DOUGLAS, P. H. *The minimum wage in Canada*. Journ. Pol. Econ., Apr., 1922. Pp. 34. Comparative study of minimum wage laws of five provinces.
- FOX, G. *Coal miners their own storekeepers*. New Repub., Apr. 19, 1922. Pp. 2.
- FREY, J. P. *A thirty-year experience in industrial democracy*. Intern. Labor Rev., Apr., 1922. Pp. 14. The joint agreement in the stove-molding trade. The author is editor of the union journal.
- GARFIELD, H. A. *The public interest in the coal strike*. Survey, May 6, 1922. Pp. 3.
- GRIFFITH, S. *Russian factory wheels in motion*. Survey, July 1, 1922. Pp. 5. Labor conditions and the attitude of the workers.
- HANSEN, A. H. *The buying power of labor during the war*. Journ. Am. Stat. Assoc., March, 1922. Pp. 11.
- HEWES, A. *Russian wage systems under communism*. Journ. Pol. Econ., Apr., 1922. Pp. 5.
- HOOVER, G. E. *Industrial war in Chicago*. New Repub., June 7, 1922. Pp. 4. Unfavorable criticism of the Landis award in the Chicago building trades and comment on subsequent developments.
- KRAUSE, L. *Reform of the new German labor law since the revolution*. Am. Fed., Apr., 1922. Pp. 3.
- LAI, M. *La réglementation internationale du travail en agriculture*. Rev. d'Econ. Intern., Mar. 25, 1922. Pp. 31. Reasons for French opposition to proposals made at Geneva Conference of International Labor Organization of the League of Nations for the regulation of agricultural labor.
- LIESSE, A. *La journée de huit heures et la situation générale*. L'Econ. Franç., Apr. 15, 1922. Pp. 3. The eight-hour law of April 23, 1919, has kept up the cost of living and has hampered France in international competition.
- . *La journée de huit: ses conséquences; modifications nécessaires*. L'Econ. Franç., Apr. 22, 1922. Pp. 3. Favors an amendment allowing administrative authority to suspend the eight-hour law and a fixing of hours, after inquiry, on the basis of effects on the health of workers and comparison with foreign laws actually enforced.
- MARK, M. L., and CROXTON, F. E. *Unemployment survey in Columbus, Ohio*. Mo. Labor Rev., Apr., 1922. Pp. 10.
- MARTNA, W. *The position of the agricultural laborer in Esthonia*. Intern. Lab. Rev., May, 1922. Pp. 8.
- MATHERLY, W. J. *Costs of labor turnover*. Administration, Apr., 1922. Pp. 5.
- NARY, E. R. *Discrimination in wage cuts*. Factory, May, 1922. Pp. 4. How an average reduction of ten per cent was distributed among employees in varying percentages according to the relative merits of the individual employees.
- NEWCOMB, E. D. *Industrial welfare work in Great Britain*. Intern. Lab. Rev., Apr., 1922. Pp. 19.
- RIPLEY, W. Z. *Bones of contention*. Survey, Apr. 29, 1922. Pp. 5. Experiences of an arbitrator.
- . *The job at Babels*. Survey, July 1, 1922. Pp. 7. Instances of how industrial relations are complicated by diverse racial factors.

- SAYER, H. D. *Women who work*. N. Y. Dept. of Labor Bull., Apr. 1922. Number, occupations, hours, trade-union membership, and position under workmen's compensation law, with particular reference to New York state.
- SAYRE, F. B. *The Coronado decision*. Survey, June 15, 1922. Pp. 2.
- SEARLES, E. *Giving stability to the coal industry*. Am. Rev. Rev., June, 1922. Pp. 4. Editor of the *United Mine Worker's Journal* advocates a permanent fact-finding commission, without power to fix wages or prices.
- SHAW, A. *Organized stitching*. Survey, April 29, 1922. Pp. 5. Joint adjustment in the Chicago clothing industry.
- SHAW, S. A. *Fruit of the loom—the shift from feudalism to capitalism in the Pawtuxet Valley*. Survey, July 1, 1922. Pp. 8. Living and working conditions in the textile mill villages concerned in the strike.
- SOULE, G. *Can a living wage be paid?* New Repub., May 3, 1922. Pp. 3. If it cannot, the first consideration in industry should be the production of means of life, not the payment of return on capital.
- STEWART, E. *Trend of employment in the manufacturing industries in the United States, June, 1914 to December, 1921*. Mo. Labor Rev., Mar., 1922. Pp. 7.
- VIENILLE, M. *Faut-il réviser la loi de huit heures?* Réforme Soc. Mar.-Apr., 1922. Pp. 58. A paper in which injurious effects of French eight-hour law of April 23, 1919, are emphasized, followed by discussion.
- Collective agreements in Germany*. Intern. Lab. Rev., Apr., 1922. Pp. 16.
- The maintenance of the supply of agricultural labour in England and Wales during the war*. Intern. Rev. Agri. Econ., Jan.-Feb., 1922. Pp. 22.
- Recent decisions of the railroad labor board*. Mo. Labor Rev., Apr., 1922. Pp. 20.
- Storlockouten i Danmark*. Soc. Medd., no. 5, 1922. Pp. 6. An account of the big lockout in Denmark which lasted from February 15 until April 8, 1922.
- Sveriges offentliga arbetsförmedling*. Soc. Medd., no. 5, 1922. Pp. 2. A summary of Swedish official unemployment statistics for March, 1922.
- The third International Trade Union Congress*. Intern. Labor Rev., June, 1922. Pp. 17.
- Wages and hours of labor in anthracite coal mining in Pennsylvania in Jan., 1922*. Mo. Labor Rev., May, 1922. Pp. 8.
- Wages and hours of labor in bituminous coal mining in the fall and winter of 1921-1922*. Mo. Labor Rev., Apr., 1922. Pp. 8.

Money, Prices, Credit, and Banking

(Abstracts by N. R. Whitney)

- AMONN, A. *Das Ziel der Währungspolitik*. Zeitschr. f. Volkswirts. u. Sozialpolitik, 7-9 Heft, 1922. Pp. 30. The goal should be stabilization of moneys in international exchange. Stability is of more importance than the level of the value of a particular money. There should be a general introduction of the gold standard or some other metallic standard.
- ANDERSON, B. M. *A fundamental solution of the foreign exchange problem*. Bankers Mag., Apr., 1922. Pp. 6. Restoration of actual gold payments essential. This can only be brought about by (1) balancing government expenditures and revenues; (2) building up the credit of the European states; (3) establishing a new gold par within reach; (4) reducing floating debts of the states; (5) curtailing paper money issues; (6) accumulating reserves of gold in the banks; (7) canceling debts between allies; (8) offering of loans by the United States and England.

- ARMINJON, P. *Le change Egyptien depuis la guerre*. Rev. d'Econ. Pol., May-June, 1921. Pp. 16.
- AUSTIN, O. T. *Rise and fall of world prices, 1913-1922*. Bull. Nat. City Bank of N. Y., June 3, 1922. Pp. 4. Tables showing average price per pound of principal articles imported and exported during years 1913 to 1922.
- BARDIANI, F. *Impoverished Europe craves a new gold standard*. Annalist, June 12, 1922. Pp. 2. A suggestion for "a gold standard international money to be exchanged for national currencies on a self-stabilizing basis. It calls for the free participation of all the civilized states of the world, proportionally to their wealth in gold, and the service of their actual banking machinery."
- BARROWS, F. B. *The country bank's substitute for "exchange."* Bankers Mag., June, 1922. Pp. 8. Abolition by the federal reserve system of the indirect "exchange" charge on check collection justified. It is proposed that a similar charge be levied with a definite, direct incidence on the drawer and on the depositor.
- BAUDIN, L. *La liquidation de la crise et la question des réparations d'après les banquiers anglais*. Rev. d'Econ. Pol., Mar.-Apr., 1922. Pp. 16.
- BEHNSEN, H. *Die internationale Währungsfrage*. Preussische Jahrb., Jan., 1922.
- BERNARD, G. *Inflation in Germany and the German banks*. Econ. World, Apr. 29, 1922. Pp. 2. Reprinted from *Journal of Commerce and Commercial Bulletin*, Apr. 21, 1922. The financial system of the Reich is responsible for inflation in Germany.
- BICKERDIKE, C. F. *Internal and external purchasing power of paper currencies*. Econ. Journ., Mar., 1922. Pp. 11. If a change in the volume of money is the only influence operating, the internal and external purchasing power of inconvertible paper money should be equal and should reflect the change in the volume of money. However, there are other influences operating. The external purchasing power may be affected by a change in the demand for foreign goods; by a change in the conditions of supply of goods available for export; or by the necessity for payment of foreign debts. The external purchasing power of continental currencies is low as compared with their internal purchasing power, because of impoverishment resulting from the war. In the case of marks it is due in part to bear speculators. If further issues of paper were stopped and the central bank acquired holdings of sterling or dollar securities or commercial paper which could be put on the market when exchange is unduly depressed, some approach to stability might be obtained.
- BIRCK, L. V. *Hvor er vor Beholdning af Sedler og Skilmønt*. Nat. øk. Tids., no. 1, 1922. Pp. 7. On January 11, 1922, there was an official count of the money, paper and coin, to be found in all Danish financial institutions. This article summarizes the results with their implications.
- BONAR, J. *Knapp's theory of money*. Econ. Journ., Mar., 1922. Pp. 8. A review of Knapp's *Staatliche Theorie des Geldes*. The historical portions of the book are praised highly; the desirability of adopting his terminology is questioned; and his fiat theory of money is rejected. The absence of any discussion of the theory of value is unusual, but according to the reviewer, Knapp regards the theory of money as a political rather than an economic matter.
- CANNAN, E. *Recent memoirs on currency policy*. Econ. Journ., Mar., 1922. Pp. 8. Notes on Seligman's *Currency Inflation and Public Debts*; Cassel's *The World's Monetary Problems*; and *Monetary Policy: Being the Report of a Subcommittee on Currency and the Gold Standard*, by Clapham et al.
- CANNAN, E., ROSS, W. D., BONAR, J., and WICKSTEED, P. H. *Who said "barren metal"?* Economica, June, 1922. Pp. 6. A symposium on the origin of the phrase "barren metal."

- DÉCAMPS, M. J. *Les aspects actuels du problème monétaire*. Réf. Soc., Mar.-Apr., 1922. Pp. 19. Most of the trouble has been caused by large issues of paper money. Restoration of pre-war monetary conditions desired, but this restoration must take place gradually.
- ELIAS, M. *The internal purchasing power of the German mark (II)*. Econ. Journ., Mar., 1922. Pp. 7. A comparison of the value of the mark and the rise in the cost of living at various dates, as compiled by several observers.
- ESTCOURT, R. *Stabilizing or improving the exchanges*. Annalist, June 12, 1922. Pp. 2. Indicates several "fallacies" in Keynes proposal for stabilization of the exchanges.
- EVERSOLE, S. *Facts worth knowing about women savers*. Bankers Mag., June, 1922. Pp. 3. An analysis of the occupations, ages and balances of 2000 self-supporting women depositors in four mutual savings banks in Boston. Data obtained during last ten days in November, 1921. Graphs and tables included.
- FOSTER, W. T. *Money as a medium of exchange*. Annalist, June 12, 1922. Pp. 2. As a medium of exchange money has been the "indispensable means" by which the modern social organization and a comparatively high standard of living for the "rank and file" has been achieved. Any improvement in our economic order must be made on a monetary basis. A return to barter is out of the question.
- . *Money in relation to goods*. Annalist, May 1, 1922. Pp. 2. The supply of money, including bank credit, may, and frequently does, vary independently of the need for it, as indicated by the supply of goods to be exchanged.
- GABRIELI, G. *Letteratura bancaria*. Riv. Intern., Jan., 1922. Pp. 5. The purposes and character of publications by banking houses.
- HAHN, A. *Zur neueren geldtheoretischen Literatur IV*. Archiv f. Sozialwis. u. Sozialpolitik, Mar., 1922. Pp. 5. Reviews of Heyn's *Zur Valutafrage*, and Gesell's *Internationale Valuta-Assoziation*.
- HECKSCHER, E. F. *Den nordiska myntunionen*. Nat. ök. Tids., no. 1, 1922. Pp. 20. An address on the Scandinavian monetary union and results brought about by war conditions.
- HOPE, G. A. *Federal reserve notes as bank reserves*. Journ. Am. Bankers Assoc., June, 1922. P. 1. Many state banks count these notes as part of their lawful reserve. This is undesirable, because they are in part credit instruments. It also prevents the notes so used from returning to the issuing bank for retirement, and thus impedes the contraction of note issues.
- . *How the reserve banks clear by wire*. Bankers Mag., May, 1922. Pp. 6. The gold settlement fund and telegraphic transfers have contributed greatly toward securing complete fluidity of funds throughout the country.
- LAUGHLIN, J. L. *The German monetary situation*. Am. Rev. Rev., May, 1922. Pp. 5. German monetary troubles arise from the overissues of inconvertible paper, the emission of which must be halted before real progress can be made. The huge demand debt should then be funded into long-term bonds to be exchanged only for paper marks. The bonds might bear no interest for the first year or two, then one per cent and so on, gradually increasing. The exchange for marks could be offered at a rate slightly above their current value, the price to be raised as the mark rises in value.
- LEDERER, E. *Zur neueren geldtheoretischen Literatur III*. Archiv f. Sozialwis. u. Sozialpolitik, Mar., 1922. Pp. 5. A review of Gustav Cassell's *Das Geldproblem der Welt*.
- LEGROS, J. B. *Chronique de l'inflation*. Journ. des Econ., Apr. 15, May 15, 1922. Pp. 14, 9. The financial commission at the Geneva conference urged the following as requisites for improvement: (a) central banks should be freed from

political control; (b) European moneys should be placed on a common standard—gold; (c) governments should definitely announce their intention to reestablish the gold standard; (d) budgets must be balanced; (e) further paper issues should be stopped; (f) all artificial regulation of exchanges should be abolished.

LESCURE, J. *Bancos de depósito, bancos de emisión y bancos de reserva*. Rev. de Ciencias Econ., Feb., 1922. Pp. 5. Translated and adapted from the *Revue d'Economie Politique*. Description of the functions of different types of banks. A reserve bank should be at the same time a bank of emission and a bank of deposit in order to furnish maximum elasticity.

LIESSE, A. *La "stabilisation" des changes et la coopération des banques d'émission*. L'Econ. Franç., May 20, 1922. Pp. 3. Representatives from the various banks of emission throughout the world should meet to devise practical means to stabilize exchange. Gold should be adopted as the common monetary standard.

MCCALEB, W. F. *Scope and mission of cooperative banking by organized labor*. Trust Companies, Apr., 1922. Pp. 3. An outline of the principles upon which the Brotherhood of Locomotive Engineers Cooperative National Bank of Cleveland is founded, together with a statement of the progress thus far made by this institution.

MAYER, H. *Untersuchung zu dem Grundgesetz der wirtschaftlichen Wertrechnung*. Zeitschr. f. Volkswirtschaft. u. Sozialpolitik, 7-9 Heft, 1922. Pp. 28. An attempt to arrive at a definition of value by examining and comparing definitions of other writers. Article to be continued.

MEYER, E., JR., *The War Finance Corporation and agricultural finance*. Bankers Mag., June, 1922. Pp. 6. A description of the post-war operations of the War Finance Corporation by the managing director; his recommendations for further legislation; and a statistical presentation of the work of the corporation from January 4, 1921, to April 29, 1922.

MINTY, L. *The work and organization of an American trust company*. Scottish Bankers Mag., Apr., 1922. Pp. 13.

OAKWOOD, J. *India's menace to world gold standard restoration*. Annalist, May 29, 1922. Pp. 2. India is absorbing practically all new South African gold arriving in London, and is drawing substantial amounts from the United States. Gold going to India is practically lost for monetary purposes.

OAKWOOD, J. *The new swing in the world's gold currents*. Annalist, Apr. 3, 1922. Pp. 2. Exports of gold from London to United States have fallen off; they have increased sharply to India and to Switzerland. Imports from South Africa to London have shown considerable decrease as a result of labor troubles in the Transvaal.

O'FARRELL, H. H. *Prices and productivity*. Fortn. Rev., Nov., 1921.

PARET, L. V. *La nueva ley del Banco de España*. Rev. Nacional de Econ., Tomo XI, 33. Pp. 21. Criticizes the Bank of Spain on the ground that it is organized and operated with an eye to obtaining greatest possible profits. Profits should not be the chief aim of banks of emission—they are distinctly public service agencies. The dividends of the Bank of Spain have uniformly exceeded those of other European central banks.

PREBISCH, R. *Anotaciones sobre nuestro medio circulante*. Rev. de Ciencias Econ., Feb., 1922. Pp. 37. An account of the Banco Nacional and the Banco de la Provincia during the period from 1872-1899. This traces the operations of the banks through the crises of 1881, culminating in the collapse of 1884-1885, and a second crisis in 1890, due to the inflation and speculation just preceding 1890.

PRICE, L. L. *Reconstruction and monetary reform*. Econ. Journ., Mar., 1922. Pp. 5. Suggests that the time is ripe for the adoption of Professor Fisher's plan to stabilize the dollar.

- RASIN, A. *What Czechoslovakia has done to strengthen her currency.* Econ. World, Mar. 25, 1922. Pp. 2. Immediately after the revolution of October, 1918, a state bank was established separate from the Austro-Hungarian Bank. Borrowing money on war loans was forbidden and the emission of uncovered notes was limited. Good harvests, increased taxation, lowering of the wages and the number of state employees, railway tariffs, all aided in maintaining the position of the Czechoslovakian crown. A policy of deflation has been undertaken but it is difficult to carry out, owing to economic conditions in neighboring countries.
- RUSSEL, A. W. *Banking, a new conception of an old science.* Annalist, June 19, 1922. Pp. 2. First of a series of articles promised on this subject. The "new conception" is apparently reserved for subsequent articles.
- SHERWELL, G. B. *Banking and trading with Mexico.* Journ. Am. Bankers' Assoc., Apr., 1922. Pp. 5. Peculiarities of Mexican negotiable instruments laws; procedure in financing imports in Mexico. Currency is scarce, rates of interest are high, and there is need for an efficient banking service. Great opportunities await American bankers and merchants.
- SLATER, G. *Indian exchange and currency.* Wealth of India, Mar., 1922. Pp. 3. A review of K. C. Mahindra's book of this title. Approval is expressed for the author's suggestion that India should adopt Professor Fisher's plan, with modifications, to stabilize the purchasing power of the rupee.
- STERNHEIM, A. *De internationale Geldmarkt.* De Economist, May, 1922. Pp. 8. A survey of the present international money market.
- SYKES, E. *Mr. R. G. Hawtrey on the efficacy of the rate of discount.* Journ. Inst. Bankers, Apr., 1922. Pp. 5. Discussion of a paper on "The Federal Reserve System of the United States," read by R. G. Hawtrey before the Royal Statistical Society. It is contended that Hawtrey ascribes too great importance to the efficacy of the discount rate in the United States, and that a great fall in prices was bound to occur after the war-time speculation regardless of the rate of discount.
- TJ. G. *Over Betalingen in Binnen en Buitenland.* De Economist, May, 1922. Pp. 5. Concerning the payment of internal and of foreign obligations by the Dutch under post-war conditions.
- WARD, W. *Commercial letters of credit as trade weapons.* Administration, May, 1922. Pp. 8. The use of commercial letters of credit is essential to the maintenance and extension of our foreign trade. There is little need for better banking facilities, but rather for better banking risks. Two main objections have been advanced against the use of commercial letters of credit—(1) the cost; and (2) the request for a letter of credit reflects upon the financial standing of the buyer. The cost should be regarded as an insurance premium against loss, and as such might be borne by the seller. As to the second objection, the request for a letter of credit really implies that the buyer's credit rating is satisfactory in his own locality, where he is best known.
- WERTHEIM, M. *Gold loans for Europe?* Bankers Mag., May, 1922. Pp. 4. The United States government should make gold loans to European countries to enable them to establish the gold standard. But this should not be done until—(1) budgets are balanced; (2) further inflation is stopped; (3) the amount of the reparations is definitely fixed; and (4) interallied loans are canceled.
- WILLIS, H. P. *Salaries of federal reserve bank officers.* Journ. Am. Bankers Assoc., Apr., 1922. Pp. 3. Salaries are higher than those paid to the head officers of the central banks of Europe, but are lower than similar services command in the principal member banks in the United States.
- WILSON, J. *The rise in value of the pound sterling.* Scottish Bankers Mag., Apr., 1922. Pp. 6. Has been due to a reduction in government paper currency and to

a feeling of confidence that this reduction will be carried further. Advocates the restoration of an unrestricted market for gold at the earliest moment possible.

WOODWORTH, L. D. *Twenty-five plans for increasing savings.* Journ. Am. Bankers Assoc., Apr., 1922. Pp. 3.

WRIGHT, A. K. *Current banking problems in relation to the state of trade.* Scottish Bankers Mag., Apr., 1922. Pp. 18. Amount and method of paying German reparations; the stabilization of currencies; the provision of loans to restore industrial activity in Europe; and the promotion of thrift among all peoples.

Bank acceptances in foreign trade. Commerce Mo., May, 1922. Pp. 2. The Federal Reserve Board has recently revised its regulation governing the rediscount by federal reserve banks of bank acceptances growing out of foreign trade. The chief change is the elimination of what practically amounted to a requirement that all accepted bills growing out of foreign trade must be documentary or secured in order to be eligible for rediscount. The new regulation gives the federal reserve banks greater discretion in determining the eligibility of any particular bill for rediscount or purchase.

Better banking under the federal reserve system. Stone & Webster Journ., May, 1922. Pp. 11. A review of the weaknesses existing in our banking system prior to the establishment of the federal reserve system, and a sketch of the improvements effected by the establishment of the reserve banks.

The development of agricultural credit in Italy during the war. Intern. Rev. Agri. Econ., Jan.-Feb., 1922. Pp. 25. A review of the measures adopted, with a description of pre-war agricultural credit organization.

The foreign exchanges. Edinburgh Rev., Jan., 1922.

Levnadskostnader under första kvartalet 1922. Soc. Medd., no. 5, 1922. Pp. 27. A tabulated, detailed study of the cost of living in different parts of Sweden during the period 1914-1922 with special details for the first quarter of the year 1922.

Le mouvement des prix et la diminution du coût de la vie. Journ. des. Econ., May 15, 1922. Pp. 7. Index numbers for prices and cost of living for 1920 and 1921, compared with 1914 as the base. Tables show a declining tendency for prices during 1921.

National banks and the business cycle. Commerce Mo., July, 1922. Pp. 5. A study of the relation between the trend in business during the past two years and the loans and discounts, demand deposits, and the borrowings of national banks. "The high point in the volume of loans, deposits and borrowings in each case came several months after the high point in the volume of general business. Deposits tended to fall off more rapidly than loans, and earlier indicated a tendency to increase. In general, liquidation in city banks began earlier and moved toward completion more rapidly than in country banks."

Progress of banking in Great Britain and Ireland during 1921. Bankers Mag., June, 1922. Pp. 13. The tendency toward amalgamation of banks through the ownership of share capital has become more pronounced than outright fusion, which was the most common method of amalgamation during previous years. 1921 was the first year which showed a decline in deposits as compared with the preceding year.

Proper functions of the federal reserve system. Bankers Mag., Apr., 1922. P. 1. The system should be truly a reserve system, the discount facilities to be drawn upon only in case of real need. Hence, its discount rate should be kept above the market rate.

Proposed legislation and agricultural credit. Commerce Mo., June, 1922. Pp. 5. Presents evidence collected by the Federal Reserve Board and by the Department of Agriculture, both showing that farmers were favored rather than discriminated

against during the period 1918-1920. Existing agencies supply fairly satisfactorily the needs for long-term (5 years) capital funds. But no agency exists to handle loans between, say, six months and two or three years.

Public Finance

(Abstracts by Charles P. Huse)

- BARRIOL, A. and BROCHU, I. *Emprunt du crédit national en 1922*. Journ. des Econ., Mar. 15, 1922. Pp. 5. Calculates the rates of return.
- BURNS, J. *Income tax changes*. Finan. Rev. Rev., June, 1922. Pp. 9. Among the changes in the British tax are the reduction in the rate of the ordinary tax and a more liberal method of determining the profits of farmers.
- COMSTOCK, A. *New financial policies of Russia*. Annalist, May 1, 1922. Pp. 1. Tells of concessions made to Western Europe.
- CONYNGTON, M. *Effect of the tax exemption ordinance in New York City on housing*. Mo. Labor Rev., Apr., 1922. Pp. 10. Gives a history of the law and an analysis of its results.
- COPPOLA D'ANNA, F. *Sul cosiddetto "valuta-dumping" e sui provvedimenti doganali contro i paesi a valuta deprezzata*. Riv. di Pol. Econ., no. 11-12, 1921. Pp. 16. Post-war tariff legislation aiming to cope with the collapse and fluctuations of exchange rates has been poorly contrived.
- COX, H. *Reluctance to receive*. Bankers Mag., May, 1922. Pp. 19. A discussion of the problem of the allied debts.
- CRAIG, C. L. *The finances of the city of New York*. Real Estate Mag. of N. Y., May, 1922. Pp. 10.
- DOANE, W. F. *Cole's "The Domestic and Foreign Wool Manufactures and the Tariff Problem."* Quart. Journ. Econ., May, 1922. Pp. 21. A review dealing with comparative labor costs, industrial technique and the tariff.
- EDMONDS, W. L. *How will Canada's preferential tariff work?* Annalist, June 5, 1922. P. 1. A brief description of the recent changes.
- FAIRCHILD, F. R. *German war finance—a review*. Am. Econ. Rev., June, 1922. Pp. 16.
- FERNAND-JACQ. *Le calcul de l'impôt général sur le revenu*. Monde Econ., Mar. 18, 1922. Pp. 4. Describes the method of determining the amount of the tax.
- VAN GIJN, A. *De Staatsfinancien na den Oorlog*. De Economist, May, 1922. Pp. 21. An account of Dutch state finances after the World War.
- HIGH, I. *New basis for taxation*. Nat. Real Estate Journ., Mar. 13, 1922. Pp. 32.
- JÈZE, G. *L'emprunt forcé*. Rev. de Sci. et de Lég. Finan., Jan.-Mar., 1922. Pp. 51. The theory and history of the forced loan.
- JORDAN, C. A. *The sales tax*. Bull. Nat. Tax Assoc., Mar., 1922. Pp. 3. Points out that the tax will bear more heavily on the poor than on the rich.
- KEIRSTEAD, W. C. *Succession duties in Canadian provinces*. Journ. Pol. Econ., Apr., 1922. Pp. 18. Canadian system shows British influence.
- LAW, W. W. *Law on bank tax*. Bull. Nat. Tax Assoc., Mar., 1922. Pp. 3. Gives a summary of arguments used in hearings on the McFadden bill, relative to a tax on national banks.
- LOCKHART, O. C. *Taxable interest on government obligations*. Bull. Nat. Tax Assoc., Apr., 1922. Pp. 2. The requirement for a statement of holdings by periods is very troublesome.

- MILLER, R. N. *Administration of the federal income tax*. Bull. Nat. Tax Assoc., Apr., 1922. Pp. 4. Would be improved by the payment of better salaries to officials and by the simplification of the law.
- NEYENS, A. *Les impôts dans le Grand-Duché de Luxembourg*. Rev. de Sci. et de Lég. Finan., Jan.-Mar., 1922. Pp. 34. Having survived the war with her industrial and agricultural equipment intact, Luxembourg hopes soon to place her finances on a sound basis.
- PEANO, L. *L'imposta sulla cifra degli affari*. Riv. di Pol. Econ., no. 11-12, 1921. Pp. 4.
- RIGHTOR, C. E. *Your tax dollar*. American City, Apr., 1922. Pp. 2.
- RINDLER, M. *Corporations under the new tax law*. Administration, Feb., 1922. Pp. 7. Small corporations will probably pay more and large corporations less.
- ROLNIK, M. *Amortization—often overlooked in tax returns*. Annalist, Apr. 3, 1922. P. 1. Discusses recent changes in the income tax law.
- ROPER, D. C. *Administrative problems in United States internal taxation*. So. Atlantic Quart., Apr., 1922. Pp. 12. Shows the need of simplicity and permanency in income tax legislation.
- STUTZ, J. G. *City tax rate bulletin for 1921*. Kansas Municipalities, Apr., 1922. Pp. 16.
- VAUGHAN, G. *The severance tax*. Bull. Nat. Tax Assoc., May, 1922. Pp. 8. Describes this unique tax on mineral output already adopted by several states.
- VINER, J. *Textbooks in government finance*. Journ. Pol. Econ., Apr., 1922. Pp. 16. A review of Plehn and Hunter leads to the conclusion that there is urgent need of the writing of textbooks.
- VIRGILII, F. *Il riordinamento del sistema tributario italiano*. Riv. di Pol. Econ., no. 11-12, 1921. Pp. 14.
- VIRTUE, G. O. *New phases of the classified property tax*. Bull. Nat. Tax Assoc., Apr., 1922. Pp. 3. Instead of having a uniform rate on intangibles throughout the state, Nebraska has adopted a method of doubtful expediency which fixes the rate at twenty-five per cent of the rate on tangible property in each district.
- WEBER, A. *Deutschlands finanzielle Leistungsfähigkeit jetzt und künftig*. Archiv f. Sozialwis. u. Sozialpolitik, May, 1922. Pp. 33. Germany can regain her financial standing if she is permitted to rebuild her shattered economic structure.
- WILLIAMS, W. M. J. *La perspective des finances nationales britanniques*. Journ. des Econ., Apr. 15, 1922. Pp. 11. In spite of economies, the loss of revenue from excess profits and sales of war material makes the prospect of tax reduction uncertain.
- The burden of real estate taxation in New York*. Bull. Nat. Tax Assoc., May, 1922. Pp. 6. The recent committee on taxation deplures in its report the rapid growth of the rates on real estate.
- Income tax statistics—report of New York income tax bureau*. Bull. Nat. Tax Assoc., Apr., 1922. Pp. 5. The low rates have contributed to the success of the New York tax.
- Japanese public finances*. Bankers Mag., Apr., 1922. Pp. 4.
- Statistics of foreign indebtedness*. Bankers Mag., Apr., 1922. Pp. 5. If Great Britain and France could collect their debts, the problem of paying the United States would be simplified.
- Wool and manufactures of. Schedule 11 of the Fordney-McCumber Tariff bill as reported by the Senate Committee on Finance*. Bull. Nat. Assoc. Wool Mfrs., Apr., 1922. Pp. 6.

Insurance and Pensions

(Abstracts by Henry J. Harris)

- BELLINGER, C. *The development of accident and health insurance in the United States*. Econ. World, May 13, 1922. Pp. 4. Evolution of the policy with tendency to more liberal terms, but lack of standardization.
- BURRAU, C. *Beiträge zur Theorie und Praxis der Versicherung ausser der Lebensversicherung*. Zeitschr. f. d. ges. Vers-Wis., Apr., 1922. Pp. 11. Use of mathematical formulas, etc., in accident, fire, etc., insurance.
- DONALD, W. J. *Insuring management*. Administration, Apr., 1922. Pp. 7. Various methods of using life policies to protect concerns from loss.
- FOERGERON, L. *Le mécanisme technique et les charges éventuelles du projet d'assurances sociales*. Journ. des Econ., Mar. 15, 1922. Pp. 19. Detailed analysis of the bill.
- GARRISON, F. S. *Burglary, theft and robbery insurance*. Econ. World, Apr. 15, 22, 1922. Pp. 3, 4. Terms of the policies and recent experiences in the fields of residence, mercantile open stock, mercantile safe, bank, and messenger, paymaster, and office or store robbery.
- HUEBNER, S. S. *Marine insurance in its relation to the American merchant marine*. Econ. World, Mar. 25, 1922. Pp. 2. Undeveloped business in this country; organizations created to carry Shipping Board risks and do salvage work. Government insurance system would be unwise.
- . *The model marine insurance law recently enacted by Congress*. Econ. World, May 27, 1922. Pp. 4. The act of Congress of March 4, 1922, regulating marine insurance in the District of Columbia, was drafted in the hope of having it used as a model by the various states, much of whose legislation affects adversely the development of marine business. Terms of the act and reasons for provisions explained.
- KASKEL, W. *Entwicklungstendenzen der deutschen Sozialversicherung*. Zeitschr. f. d. ges. Vers.-Wis., Apr., 1922. Pp. 8. Original laws were straight insurance, having benefits proportioned to the contributions. Gradually state relief is supplanting insurance.
- KIRKPATRICK, A. L. *The development of public liability insurance rates for automobiles*. Proc. Cas. Act. Soc., Nov., 1921. Pp. 19. The National Workmen's Compensation Service Bureau has compiled the experience in this field. The present basis for rate making is the cost of the car, but conditions are changing so rapidly that improvements will probably be introduced shortly.
- LESLIE, W. *Distribution of surplus by casualty companies writing participating insurance*. Proc. Cas. Act. Soc., Nov., 1921. Pp. 23. Reviews existing dividend systems, principles underlying a sound basis of dividends; uses experience of the State Compensation Insurance Fund of California.
- MACLEOD, N. *Some observations on profits insurance*. Econ. World, Apr. 29, 1922. Pp. 3. Loss of profits due to fire. Methods of computing profits.
- MORTLEY, R. S. *Participating vs. non-participating life insurance in Canada during and since the war*. Econ. World, Apr. 1922. Pp. 2. Reprinted from *The Monetary Times*, Apr. 14, 1922. The war losses, coming at the same time as the much heavier influenza deaths, together with the increases in cost of doing business, have made it necessary to reduce dividends; probably reduction will continue until 1925.
- MOWBRAY, A. H. *Classification of risks as the basis of insurance rate making with special reference to workmen's compensation insurance*. Proc. Cas. Act. Soc., Nov., 1921. Pp. 16. States five fundamentals of classification of risks and presents program for the study and review of the present manual.

- _____. *Competition and regulation of rates for casualty insurance*. Proc. Cas. Act. Soc., Nov., 1921. Pp. 9. The regulative powers of state officials enable them to insist on favorable terms for their localities. Proper standards are the remedy.
- PAGE, C. R. *Factors to be considered in rate making in marine insurance*. Econ. World, June 10, 1922. Pp. 4. Principal factor is management—its probity and efficiency. In cargo insurance factors include voyage, nature of cargo, human element, etc.
- RAMON, G. C. *The social insurance bill of the French government*. Intern. Lab. Rev., June, 1922. Pp. 21. Statement of its provisions, with comment.
- STAHL, J. M. *Why not insure farm crops?* Am. Rev. Rev., May, 1922. Pp. 3. Average annual crop damage during eleven years was \$2,620,000,000. The government has insured ships, also soldiers and sailors; it would be of much more value to the country to protect the farmers.
- STODDARD, F. R., JR. *An official explanation of the provisions of the recently enacted insurance rating law of New York*. Econ. World, June 17, 1922. Pp. 3. Explanation and interpretation, by the state superintendent of insurance, of act of April 13, 1922; forms chapter 660 of laws of 1922, amending section 141 and adding sections 141a and 141b to the insurance law.
- STUDENSKY, P. *Pensions in public employment*. Nat. Munic. Rev., Apr., 1922. Pp. 28. Report prepared for the Committee on Pensions of the National Municipal League. Begins by pointing out the defects of existing systems, especially the retirement system for federal employees. Urges that multiplicity of small funds be avoided and gives a classification of employees based on occupation. A pension fund should be based on statistical and actuarial investigation just as other systems of insurance are and an adequate reserve is essential. Such systems work best on the joint contributory principle. The benefits provided should be based primarily on age, with due consideration of salary and length of service. Separation from the service should mean refund of contributions with compound interest. The administration should provide for representation of the insured and have frequent actuarial valuations. Author gives description of sound systems now in operation. A convenient synopsis of the problem, especially useful for municipalities.
- TURNER, G. E. *The state of Ohio and workmen's compensation insurance*. Econ. World, Apr. 29, 1922. Pp. 4. The state fund of Ohio has not given better service than the private companies elsewhere.
- UNRAIN, A. M. *Reforma de la ley 9688, de accidentes de trabajo*. Boletin del Museo Soc. Argentino, Jan. 10, 1922. Pp. 12. Proposals for amending the law; wage limit is too low, agriculture, etc., should be included.
- VELAY, J. *Considérations nouvelles sur les pensions de guerre*. Journ. des Econ., Apr. 15, 1922. Pp. 7. To secure a reduction in the heavy expenditures for war pensions, author proposes that pensioners be given option of accepting smaller pensions at present, with higher pensions, actuarially equivalent at, say, age 55.
- WENDT, J. *Sterblichkeitstabellen der deutschen Volksversicherung*. Zeitschr. f. d. ges. Vers.-Wis., Apr., 1922. Pp. 14. Tables showing a leading industrial (instalment) company.
- WOODWARD, J. H. *Industrial retirement systems based on the money-purchase principle*. Proc. Cas. Act. Soc., Nov., 1921. Pp. 22. Retirement pension plans must be secure, equitable, and must be in the form of a contract. Author suggests that pension systems of industrial establishments be supervised by state authorities.
- Credit insurance*. Fed. Reserve Bull., June, 1922. Pp. 11. A study of the use of "credit insurance in the United States and the methods by which it is written."

Reinsurance as a necessary practice in modern fire insurance. Econ. World, Apr. 8, 1922. Pp. 3. Its nature and object, and its necessity in the practical conduct of the fire business.

Unemployment insurance. The bankers' special scheme. Journ. Inst. Bankers, May, 1922. Pp. 3. Details of the plan for organizing the banking industry for this insurance.

Pauperism, Charities, and Relief Measures

(Abstracts by George B. Mangold)

BRONNER, A. E. *The apperceptive abilities of delinquents.* Journ. Delinquency, Jan., 1922. The author has made a study of the 1043 cases, of which 729 are repeated offenders. The evidence indicates that apperceptive ability is not closely correlated with intelligence. Nevertheless, there seem to be some direct relations to delinquency.

CLARK, W. W. *Home conditions and native intelligence.* Journ. Delinquency, Jan., 1922. The relationship between the two pictures is not clear. The author has evidence "to indicate a moderate tendency for degree of intelligence to be related to quality of the home." But there are other features the precise bearing of which has not been ascertained.

GOLDBLATT, M. E. *The history of juvenile court laws in New York state.* Journ. Delinquency, Jan., 1922. A brief account of the juvenile court laws passed in New York state—gives particular attention to the laws applying to different cities. It also contains suggestions for the future.

JOHNSON, F. R. *Public relief of unemployment.* Survey, Apr. 8, 1922. Pp. 2. This article is a brief account of the relief used in Detroit in 1921. An elaborate program was developed and trained social workers were used to carry it out. Many positions were secured and many jobs provided in exchange for relief. The writer is most hopeful about the work.

KOHS, S. C. *An ethical discrimination test.* Journ. Delinquency, Jan., 1922. The writer has developed a set of tests with which he hopes to "open up new fields of investigation in the realm of moral education as well as of responsibility. These tests are expected to have greater value as individual than as group tests.

Statistics

(Abstracts by Horace Secrist)

AUSTIN, O. P. *Use of statistical publications of the government in working out problems of commercial investigation.* Administration, Apr., 1922. Pp. 4. A useful list of statistical publications of the United States government, together with helpful critical comments.

AYRES, L. P. *The nature and status of business research.* Journ. Am. Stat. Assoc., March, 1922. Pp. 9. Holds that the job of the business statistician is to look into the future, and sets up his qualifications. Inasmuch as it is his function to furnish those in position of control with "a fact basis for their thinking and acting" his training must be broad, his acquaintanceship with statistical method sound, and his knowledge of economic principles comprehensive.

BERRIDGE, W. A. *Cycles of employment and unemployment in the United States.* Journ. Am. Stat. Assoc., March, 1922. Pp. 14. A contribution to statistical method in its application to social data. Makes use both of employment and unemployment data drawn from state and national sources in order to construct a continuous index; and not to estimate the volume of unemployment.

BIRKETT, M. S. *The British iron and steel industry.* Economica, June, 1922. Pp. 112. An historical review—tables. Concludes: "We are the only steel-producing country with suitable coal supplies on the coast to which foreign ore can be brought by sea and the product re-shipped."

- BIVINS, P. A. *Charting as an aid in stabilizing profits*. Indus. Manag., July, 1922. Pp. 9. Addressed primarily to commodity prices—the third of a series of interesting applications of graphics to business problems.
- BOWLEY, A. L. *British economic conditions: an index of British economic conditions, 1919-1922*. Rev. Econ. Stat., June, 1922 (supp. 2). Pp. 12. Prepared at the London School of Economics and Political Science. Communicated by Dr. Arthur L. Bowley, professor of statistics in the University of London.
- DAVIS, J. S. *Index numbers of foreign exchange*. Quart. Journ. of Econ., May, 1922. Pp. 7. A critical, and on the whole, an unfavorable account of the indexes of foreign exchange first published by certain foreign journals, and later elaborated by the Federal Reserve Board and printed in its *Bulletin*. "The objection to the elaboration of such index numbers is not alone to the waste of labor which they entail in preparation and in amateur efforts at interpretation, and to the discredit which they reflect upon useful statistical devices, but to the unsound reactions they imply or support."
- DENNISON, H. S. *Management and the business cycle*. Journ. Am. Stat. Assoc., Mar., 1922. Pp. 13. A stimulating statement of the way in which statistical data of prices, sales, stocks, etc., may be used to guide business through the different phases of the business cycle. "Management can make practical use of a study of cycles."
- FISHER, R. A. *On the interpretation of X^2 from contingency tables, and the calculation of P*. Journ. Royal Stat. Soc., Jan., 1922. Pp. 7.
- HANSEN, A. H. *The buying power of labor during the war*. Journ. Am. Stat. Assoc., Mar., 1922. Pp. 11. A discussion of the meaning of "buying power" and the method of measuring it. Concludes from his analysis that "the per capita buying power of the wage-earning class (in the United States) during the years 1916 to 1918 appears, then, to have been on the average 8.5 per cent above the normal per capita buying power of labor in pre-war days."
- HAWTREY, R. H. *The federal reserve system of the United States*. Journ. Royal Stat. Soc., Mar., 1922. Pp. 31. An historical résumé.
- MACROSTY, H. W. *Some current financial problems*. Journ. Royal Stat. Soc., Mar., 1922. Pp. 30. Primarily concerned with credit and currency problems.
- PENSON, J. H. *The Polish mark in 1921*. Econ. Journ., June, 1922. Pp. 7. A study of the depreciation of the mark. Course due to excessive issues of money with metallic backing and to violent outside political movements.
- PERRY, S. J. *On the relation between the course of wholesale prices of commodities and the market value of various classes of securities*. Journ. Inst. Actuaries, Mar., 1922. Pp. 22. An examination of the relation of wholesale prices (in England) to the market value of various types of securities in relation to the problem of investing insurance funds. Concludes: "There would, from the foregoing, appear to be a sound case for periodical revision of investment policy in accordance with any decided change that may occur in the course of commodity price levels. However, it must be admitted that any attempt exactly to forecast the future is fraught with danger."
- PERSONS, W. M. and BERRIDGE, W. A. *British economic conditions: an index of conditions for 1903-14*. Rev. Econ. Stat., June, 1922 (supp. 2). Pp. 16.
- ROORBACH, G. B. *Europe and the development of American foreign trade*. The Annals, July, 1922. Pp. 8. A statistical study of the relation of European trade to the financial and business recovery of the United States and of Europe.
- RUSHEE, E. A. *The statistics of industrial morbidity in Great Britain*. Journ. Royal Stat. Soc., Jan., 1922. Pp. 44. Urges extended use of data on occupational incidence and causes of morbidity, and insists that in order to measure scienti-

fically morbidity, standard tables of sickness are required. Out of mass experience, standards for industrial population of a country could be procured. Bibliography.

WHITE, E. *Income fluctuation of a selected group of personal returns*. Journ. Am. Stat. Soc., Mar., 1922. Pp. 15. Use of returns from statistics of income to measure the dispersion of incomes of 1240 "persons," from 1914 to 1919, who reported in any of the years net income of \$300,000 and over.

WINKLER, W. *Die statistischen Verhältniszahlen*. Zeitschr. f. Volkswirtsch. u. Sozialpolitik, 10-12 Heft, 1 Band. Pp. 24.

YULE, G. U. *On the application of the X^2 method to association and contingency tables, with experimental illustrations*. Journ. Royal Stat. Soc., Jan., 1922. Pp. 10.

Bollettino di statistica del comune di Roma. L'Ufficio Munic. del Lavoro di Roma, Boll. Mens., Dec., 1921. Pp. 24. Current civil and economic statistics of Rome.

The gold and silver situation. Fed. Reserve Bull., June, 1922. Pp. 7. A statistical review of the situation in the principal countries of the world. Contains tables and charts.

Methods of determining the cost of living. Manag. Engg., April, 1922. Pp. 5. A review of the methods used by the United States Bureau of Labor Statistics, National Industrial Conference Board, American Rolling Mills, and Holt Manufacturing Company.

Paving statistics for 1921. Public Works, Feb. 18, 1922. Pp. 10.

Rate of turnover of bank deposits. Mo. Rev. of Credit and Business Conditions, 2nd Fed. Reserve Dist. (N. Y.), Apr., 1922. P. 1. A new index of business activity in the rapidity of turnover or velocity of bank deposits. Data for New York City, Albany, Buffalo, Rochester, Syracuse, Chicago, and San Francisco. Data and charts.

A statistical abstract of ports of the South. Gulf Ports Mag., Mar., 1922. Pp. 11.

Statistics of the unemployed. Intern. Lab. Rev., Feb., 1922. Pp. 7. A comparison for United States (Massachusetts) and the chief European countries. "In no case can an accurate statement be made as to whether unemployment is greater or less in one country or another, because the nature of the figures in each case is very diverse and the methods of compilation so different. At the very best the figures are only comparable in each country by itself over the period of years and months indicated."

Wholesale prices of commodities in 1921. Journ. Royal Stat. Soc., Mar., 1922. Pp. 22. The "Statist's" index numbers, in continuance of Mr. A. Sauerbeck's figures.

DOCUMENTS, REPORTS AND LEGISLATION

Industries and Commerce

The United States Tariff Commission has recently published:

The Foreign Trade of Japan, with Special Reference to Trade with the United States (Washington, 1922, pp. viii, 229; six charts; 25c). This monograph contains chapters relating to the development of Japan's foreign trade prior to the war, trade since 1913, trade by groups of commodities, and trade between the United States and Japan.

Colonial Tariff Policies (pp. 869).

The Federal Trade Commission has issued its report on *Canned Foods, 1918* (Washington, 1922, pp. 86). Court decisions of cases which involve questions brought before its jurisdiction are being published by the Commission; copies of these decisions are to be obtained by application to the Publication Section.

The Bureau of Foreign and Domestic Commerce has issued—
Miscellaneous Series:

No. 107, *The Import and Export Schedule of Belgium* (pp. 28).

No. 108, *Vegetable Oils and Oil Materials in International Commerce* (pp. 25).

No. 110, *Import and Export Schedules of Cuba* (pp. 19).

Special Agents Series:

No. 211, *Forest Resources, Lumber Industry and Lumber Export Trade of Norway*, by Axel H. Oxholm (pp. 136).

No. 213, *Electrical Goods in British India and Ceylon*, by R. A. Lundquist (pp. 121).

Trade Information Bulletins:

No. 9, *Cotton Textile Industry of Germany*, by Donald L. Breed (pp. 8).

No. 11, *The Steel-Making Facilities of Great Britain*, by H. B. Allin Smith (pp. 9).

No. 21, *Export Trade of the United States and Germany, Comparative Figures for 1913, 1920, and 1921*, by Joseph N. C. Reagan (pp. 17).

The report of the Committee of Finance on the tariff bill submitted by Senator McCumber has been printed as *Senate Report no. 595*, 67 Cong., 2 Sess. (pp. 20).

The Domestic Distribution Department of the Chamber of Commerce of the United States, Washington, is publishing cyclostyled sheets of charts and notes on retail and wholesale trade.

The Port of New York Authority has issued a supplementary *Report with Plans for the Comprehensive Development of the Port of New York* (Albany, 1921, pp. 56, with maps).

Notice has been received from the Census and Statistics Office of New Zealand that in lieu of the present *Annual Statistics of New Zealand*, appearing in four volumes, there will hereafter be published nine *Statistical Reports*, each containing in addition to the tables, a certain amount of introductory letter-press. A charge henceforth will be made for all publications.

Corporations

The Senate Committee on Interstate Commerce has printed *Extracts from Hearings on Railway Revenues and Expenses* (Washington, 1922, pp. 1597-1909). This contains the statements of Walker D. Hines, William G. McAdoo, J. F. Anderson, F. J. Manion, H. J. Chapman, Henry T. Hunt, J. J. Forester.

The Presidents' Conference Committee (737 Commercial Trust Bldg., Philadelphia) has printed a statement prepared by Frederick H. Lee, Secretary of the Developments, on *Federal Valuation of the Railroads in the United States as of May 12, 1922* (pp. 9).

The New York, New Haven and Hartford Railroad Company (New Haven, Conn.) under date of July 3, 1922, has issued a pamphlet dealing with the wage questions at issue.

From the United States Railroad Labor Board have been received Decisions:

- No. 982, *Railway Employees' Department, A. F. of L. (Federated Shop Crafts) vs. Indiana Harbor Belt Railroad Company* (Chicago, 1922, pp. 12).
- No. 1028, *Alabama & Vicksburg Railway Company et al. vs. United Brotherhood of Maintenance of Way Employees and Railway Shop Laborers et al., Effective July 1, 1922* (pp. 45).
- No. 1036, *Alabama & Vicksburg Railway Company et al. vs. Railway Employees' Department, A. F. of L. (Federated Shop Crafts) et al., Effective July 1, 1922* (pp. 45).
- No. 1074, *Alabama & Vicksburg Railway Company et al. vs. Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees et al., Effective July 1, 1922* (pp. 67).

The following public utility reports have been received:

Tenth Annual Report of the Public Utilities Commission of Connecticut (Hartford, 1922, pp. 795).

Eighth Annual Report of the Public Utilities Commission of Idaho, from July 1, 1920 to June 30, 1921 (Boise, 1921, pp. 250).

Report of the Public Service Commission of Maryland for the Year 1921 (Baltimore, 1922, p. 518).

Report of the Public Service Commission for the First District of the State of New York for the Year Ending December 31, 1918. Vol. II, Statistics of Public Service Corporations (New York, pp. 979).

Labor

The federal Bureau of Labor Statistics has issued:

- No. 290, *Decisions of Courts and Opinions Affecting Labor, 1919-1920*, by Lindley D. Clark and Martin C. Frincke, Jr. (Washington, pp. 477).
- No. 293, *The Problem of Dust Phthisis in the Granite-Stone Industry*, by Frederick L. Hoffman (pp. 178).

No. 297, *Wages and Hours of Labor in the Petroleum Industry, 1920* (pp. 153).

No. 301, *Comparison of Workmen's Compensation Insurance and Administration*, by Carl Hookstadt (pp. 194).

No. 303, *Use of Federal Power in Settlement of Railway Labor Disputes*, by Clyde Olin Fisher (pp. 121). Gives an historical survey of the law of 1888, Pullman strike of 1894, the Erdman and Newlands acts, the Adamson law, and the Transportation act of 1920.

The Children's Bureau of the United States Department of Labor has published:

No. 98, *Child Labor and the Work of Mothers in Oyster and Shrimp Canning Communities on the Gulf Coast*, by Viola I. Paradise (pp. 114).

No. 102, *Children of Wage-Earning Mothers, a Study of a Selected Group in Chicago*, by Helen Russell Wright (pp. 92).

The Women's Bureau of the United States Department of Labor has issued bulletin no. 21, *Women in Rhode Island Industries, a Study of Hours, Wages, and Working Conditions* (pp. 73).

Among state reports dealing with labor are to be noted:

Fourth Annual Report of the Minimum Wage Board of the District of Columbia, for the Year Ending December 31, 1921 (Washington, 1922, pp. 46).

Eleventh Biennial Report of the Department of Commissioner of Labor and Industrial Statistics of the State of Louisiana, 1921-1922 (New Orleans, 1922, pp. 193).

Annual Report of the Department of Labor and Industries of Massachusetts for 1921 (Boston, 1922, pp. 108).

Twenty-eighth Annual Report of Factory Inspection for Rhode Island (Providence, 1922, p. 79).

Money, Prices, Credit, and Banking

The United States Department of Labor announces that a complete revision has been made of its series of index numbers showing changes in the level of wholesale prices. This revision consists in (1) a regrouping of the commodities and the addition of a considerable number of ordinary articles; (2) the use of the 1919 census data for weighting purposes in place of the 1909 census data formerly employed. The Bureau of Labor Statistics has issued cyclostyled sheets showing revised index numbers.

Better Banking under the Federal Reserve System is a fourteen page pamphlet distributed at a nominal price by all federal reserve member banks, which should be found useful in connection with elementary courses in economics. In simple language the essential features of banking under the federal reserve system are described. The services banks render their customers; the aid the twelve federal reserve banks extend to their member banks and to each other; the functions of the Federal Reserve Board; the reasons why we formerly had money panics and why we need fear them no

longer; and other vital elements of the American banking business are described and illustrated with admirable clearness. Teachers who appreciate the value of supplementary material for their classes will find this pamphlet particularly well adapted, in its limited field, to such use.

The First Joint Stock Land Bank of New York has issued in pamphlet form *Bankers Endorse Joint Stock Land Banks*, a reprint from *United States Investor*, June 10, 1922; and a pamphlet showing how borrowing is made easy and profitable for the land owner (New York, 61 Broadway).

The July number of *Commerce Monthly* published by the National Bank of Commerce in New York, contains some interesting tables prepared by Mr. O. C. Lockhart, tracing the movement of banking figures during the recent crisis. These figures are assembled for country banks by geographical districts. The conclusion is that the generalizations made by Professor Mitchell in his book on *Business Cycles* that "the changes experienced or initiated by banks are less prompt and less considerable in the country than in the urban centers" are justified by the crisis of 1920.

The London Joint City and Midland Bank, Ltd. (5 Threadneedle St., London, E. C. 2) publishes a *Monthly Review* which contains valuable data in regard to banking and trade movements.

There has recently been established the publication of *Buletinul Institutului Economic Românesc*, under the editorship of Dr. Gheron Netta (Banca Nationala a Romaniei, Bucuresti).

Among state reports dealing with banking are the following:

Third Annual Report of the State Bank Commissioner of Delaware, 1921 (Dover, pp. 80).

Banking Law in the State of Illinois (Springfield, 1921, pp. 14).

Annual Report of the Superintendent of Banks Relative to Savings Banks, Trust Companies, Investment Companies, Safe Deposit Companies, Personal Loan Companies and Personal Loan Brokers, for 1920 (Albany, 1921, pp. 771).

Report of the Bank Commissioner of Vermont, 1921 (Montpelier, pp. 255).

Public Finance

Report of the [New York] Special Joint Committee on Taxation and Retrenchment, Submitted March 1, 1922. Legislative Document (1922) no. 72 (Albany, pp. 383).

Originally appointed in 1919, this committee has, with the aid of Professor R. M. Haig and a dozen other well-known economists and tax-lawyers, prepared an excellent report on the revenue system of New York state. It is in two parts, of which the first is a critical survey, with recommendations for changes both in the kinds of taxes and the methods of assessment and collection, while the second part is a statistical investigation of the tax burden on corporations of various sorts.

As a result of their investigation, the committee concludes that public utilities, except steam railways, and most kinds of financial institutions have

been paying in taxes a larger proportion of their net income than has been required of business corporations; and that the distribution of the burden has been very unequal even within each separate class of corporations. Small financial institutions seem to have been more heavily taxed than larger ones, and electric railways more heavily than other public utilities.

To remedy these inequalities, as well as to simplify and make more productive the whole tax system, the committee makes sixteen recommendations for immediate action, besides others not so urgent. The object they have in mind is to tax real estate for local purposes only; and to derive the state's revenue from taxes on the net income of individuals, supplemented by business taxes also imposed on net income except in the case of public utilities, where gross earnings are to be the principal basis for the sake of simplicity and steadiness of yield. Of course the inheritance tax is to be retained, and other special taxes such as those on automobiles and stock transfers. Part of the proceeds of the state-collected taxes is to be apportioned to the localities to replace their present sources of revenue (special franchises and personal property). A constitutional amendment is proposed for the purpose of establishing larger tax districts and centrally supervised assessments. The collection of school taxes levied on the property of public utilities is to be centralized.

The committee recommends several changes in the personal income tax law, such as allowing net losses to be set off in subsequent years, and proposes that a minimum tax of perhaps one dollar should be collected from every citizen as a prerequisite for voting or employment. They do not favor the recent federal charges with regard to capital gains, personal exemptions, appreciation in the value of gifts, and exchanges of property other than for cash. The business tax on net incomes is to be imposed on unincorporated businesses as well as on corporations, although the corporations pay at a higher rate. Banks also should be subjected to this tax if the federal statute is changed to permit this; otherwise it will be necessary to reimpose a property tax on all moneyed capital at a uniform rate—a horrid prospect! Even in the case of public utilities, net income is to be considered in fixing the rates.

It is proposed to adopt the Uniform Vehicle Tax law, and in addition put a tax of one cent per gallon on gasoline. Such a tax is now imposed in fourteen states.

Although the word "retrenchment" occurs in the committee's title, the only suggestions along that line are for economy in the collection of franchise and inheritance taxes. A thorough study is recommended of local revenues and expenditures, as it is thought that the chief saving can be effected there rather than in the state budget.

There is a useful digest of laws of various states relating to methods of taxing public utilities, and much other information of value to non-residents of New York. Citizens of that state will be fortunate if the committee's recommendations are speedily enacted.

RUFUS S. TUCKER.

NOTES

The following names have been added to the membership of the AMERICAN ECONOMIC ASSOCIATION since the first of May:

Amos, H. N., 98, The Terrace, Wellington, New Zealand.
 Ball, L. C., Oregon Agricultural College, Corvallis, Ore.
 Beckhart, B. H., 526 West 122d St., New York City.
 Burgess, G. S., Claremont, Calif.
 Butt, W. E., 110 West Nittany Ave., State College, Pa.
 Chapman, H. H., University, Ala.
 Condit, K., Tenth Ave. at 86th St., New York City.
 Cooper, F. S., Box 56, Rome, Ga.
 Cutler, F. M., University of Porto Rico, Rio Piedras, P. R.
 Dailey, D. M., 822 Foster St., Evanston, Ill.
 Davison, E., Ohio State University, Columbus, O.
 Epley, J. F., Silver City, New Mexico.
 Horning, F. J., Dominion Bureau of Statistics, Ottawa, Ont., Canada.
 Liming, M. D., 177 Milk St., Boston, Mass.
 Loonie, T. J., Holley, N. Y.
 McCort, W., Anson, Kans.
 McGoldrick, J., 1058 Lafayette Ave., Brooklyn, N. Y.
 McGuire, C. E., 1520 H St., Washington, D. C.
 Oda, J. K., 1749 Sutter St., San Francisco, Calif.
 Rai, A., The Tilak School of Politics, Lahore, India.
 Rankin, R. G., 61 Broadway, New York City.
 Reed, E. G., 19 South Liberty St., Elgin, Ill.
 Richardson, I. G., Atlas Portland Cement Co., 25 Broadway, New York City.
 Rist, C., 18 Rue du Parc le Clagny, Versailles, France.
 Taylor, O. H., 975 University Ave., Boulder, Colo.
 Turnbull, T., Jr., 835 Western Ave., Pittsburgh, Pa.
 Wallace, W., Linfield P. O., Alberta, Canada.
 White, W. L., 860 Twelfth St., Boulder, Colo.

At a special meeting of the American Statistical Association held in New York City, June 16, discussion was devoted to the subject, "Some Problems of Business Research." Among those taking part were Joseph E. Pogue, "Statistics as an Aid to Management"; Raymond B. Prescott, "A Method of Forecasting Demand"; Walter N. Polakov, "Statistical Aids to Production"; Carl Snyder, "Business Forecasting."

Announcement has been made of the nineteenth competition for the Hart Schaffner & Marx prizes, to be awarded in 1923. Information may be obtained from Professor J. Laurence Laughlin, University of Chicago.

Brown University announces the organization, in cooperation with the Providence Chamber of Commerce, of Brown Bureau of Business Research, with Professor H. B. Gardner as a vice-chairman and Professor Ralph E. Badger as secretary-treasurer.

The College of Agriculture of the University of California announces courses for the training of men for coöperative organization work.

The Babson Statistical Organization, at Wellesley Hills, Mass., is undertaking an investigation of the "path of business depression" and the "path of business prosperity." This organization is also engaged in a study of the proper location of distribution centers, including sales offices and warehouses for different lines of merchandise. Among other activities is a survey of the motion picture industry, conducted by the Babson Statistical Organ-

ization in conjunction with Columbia University and Motion Picture News. Over 13,000 questionnaires have been sent out. The staff of this organization is also planning an extensive price study of agricultural products in an attempt to ascertain the prospective increase or decrease in the purchasing power of agricultural sections during the coming fiscal year. Constructive suggestions in regard to these various investigations will be welcome.

The organization of the New England Research Council to encourage and coördinate research work in problems of marketing and the food supply was completed on July 29 at Massachusetts Agricultural College. Kenyon L. Butterfield, president of Massachusetts Agricultural College was chosen president of the council, and Laurence Bevan, secretary of the committee on agriculture of the Boston Chamber of Commerce was chosen recording secretary. Colleges and universities, state departments of agriculture, the United States Department of Agriculture and other organizations actively engaged in prosecuting studies in marketing or the food supply are eligible to membership. The Bureau of Agricultural Economics of the United States Department of Agriculture will provide a high-grade investigator as executive secretary, who will have headquarters in Boston and will become a sort of clearing house for the coöperating agencies. This executive secretary will be the representative of the United States Department of Agriculture on the council. Probably the first problem to engage the attention of the council will be a study of the food supply of Boston. The basis of this study is a comprehensive outline prepared under the direction of Dr. Alexander E. Cance by the department of agricultural economics of Massachusetts Agricultural College. It is expected that Dr. R. J. McFall, extension professor of agricultural economics, will begin active work on this study very soon. The Massachusetts state director of markets, W. A. Munson, in coöperation with Harvard University and the United States Department of Agriculture, has already conducted some preliminary studies on the Boston market.

This summer the economics department of the University of Wisconsin conducted an Industrial Relations Conference in charge of Professor John R. Commons and his staff, assisted by the Industrial Commission of Wisconsin. Among the subjects considered were the Origin and Development of the Industrial Commission, Accident Compensation, Industrial Rehabilitation, Accident Prevention, Child Labor Laws, Apprenticeship Laws, Employment work of the Public Employment Offices, and Mediation in Labor Disputes.

The Kingsley Trust Association has recently given to Yale University a large library known as the William H. Brown collection. This comprises between 20,000 and 25,000 pamphlets, consisting of railroad, public utility and industrial corporation mortgages, leases, reorganization plans and agreements, protective committee deposit agreements, subscription agreements, annual reports, etc. These pamphlets were collected by William H. Brown over a period of thirty years.

The Russell Sage Foundation is engaged upon a comprehensive regional plan of New York and its environs. Printed and cyclostyled material in

regard to this study may be obtained upon application to Mr. Flavel Shurtleff, assistant secretary to the committee.

The Williams and Wilkins Company, Baltimore, is beginning on behalf of the Personnel Research Federation the publication of the *Journal of Personnel Research*, of which the first issue appeared in May, 1922. Among the articles in the first number are "Reasons for Personnel Research," by President Angell, of Yale University; "Development of Personnel Research," by Alfred D. Flinn; "Basic Experiments in Vocational Guidance," by C. S. Yoakum.

Beginning with January of this year there appeared the *Economic Bulletin of Cuba*, published monthly at Havana (61 Obrapia Street; price, \$4.00 per annum).

London Municipal Notes has been merged with *The Ratepayer*, "the journal of the ratepayers', municipal, and kindred associations whose object is economy in local government" (Palace Chambers, Bridge Street, Westminster, S. W. 1).

Administration for May, 1922, has an article entitled "Executive Training and the Engineering School," by John S. Keir, of the Carnegie Institute of Technology.

The *Journal of Political Economy*, April, 1922, contains a memorial address on the late Professor Henry Carter Adams, presented to the Senate of the University of Michigan by S. Lawrence Bigelow, I. Leo Sharfman, and R. M. Wenley. There is appended a bibliography of Professor Adams' writings.

The National Association of Cost Accountants (130 West 42nd Street, New York City) has cyclostyled sheets showing the list of its publications which are now available.

The Williams and Wilkins Company, of Baltimore, proposes, if sufficient support is forthcoming, to publish the proceedings of the second International Congress of Eugenics. The titles of the proposed volumes are: I, *Eugenics, Genetics, and the Family*; II, *Eugenics in Race and State*. It is estimated that \$10,000 will be needed to finance the undertaking. Those interested in the publication are invited to communicate with the publishers.

D. Appleton and Company announces, among the new books to be published for the Institute for Government Research, volumes on the United States Tariff Commission, the Federal Trade Commission, the Employees Compensation Commission, and the Federal Board for Vocational Education.

The Institute for Research in Land Economics at the University of Wisconsin, of which Dr. Richard T. Ely is director, is planning a number of publications, one of which is a three volume work in the land economics series. The titles of the volumes are: I, *Character and Classification of Land*; II, *Costs and Income in Land Utilization*; III, *Land Policies*. These volumes are bound in mimeograph form so that they can be used this coming year. The Institute already has prepared a volume entitled *Land Economics*.

The University of Chicago Press announces the early publication of *The Technique of Business Communication*, by Nathaniel W. Barnes; *Commercial Banking Policies*, by Harold G. Moulton; *Managerial Accounting*, by J. O. McKinsey; *The Manager's Administration of Finance*, by C. O. Hardy and S. P. Meech; *The Manager's Administration of Risk and Risk-Bearing*, by C. O. Hardy; *The Manager's Administration of the Market*, by N. W. Barnes, L. S. Lyon and L. C. Sorrell; *The Worker in Modern Economic Society*, by P. H. Douglas, C. N. Hitchcock and W. E. Atkins; and *Education for Business*, by Leverett S. Lyon.

The Bankers Publishing Company of New York announces the early publication of the reminiscences of Thomas P. Kane, deputy comptroller of the currency, who has been for forty years in the service of that bureau.

The United States Department of Commerce has published in pamphlet form a new edition of the *List of Publications of the Department Available for Distribution*.

Harcourt, Brace, and Company announces the preparation of volumes on *The Distribution of Wealth*, by G. F. Shove, Kings College, Cambridge; *Public Finance*, by M. C. Robinson, Manchester University; *The Control of Industry*, by Barbara Wootton, Girton College, Cambridge; and *Population*, by Harold Wright, Pembroke College, Cambridge. These volumes are under the general editorship of John Maynard Keynes.

The Chicago, Rock Island, and St. Paul Railroad is preparing a history of that road in connection with the celebration of the seventieth anniversary of the operation of the first train west from Chicago, in October, 1852.

Appointments and Resignations

Mr. Juan R. Acevedo comes this fall to Boston University, College of Business Administration, as an assistant in foreign trade and secretary to the economics department.

Mr. Adolph H. Armbruster, of Price, Waterhouse Company, has been made assistant professor of accounting at Yale University.

Dr. Abraham Berglund, special expert of the United States Tariff Commission, has accepted an appointment as associate professor of commerce and business administration at the University of Virginia.

Dr. William A. Berridge has been appointed assistant professor of economics at Brown University, and will teach statistics and insurance.

Dr. F. Stuart Chapin, professor of economics and sociology at Smith College and formerly director of the Smith College Training School for Social Work, has resigned to accept an appointment as professor of sociology, chairman of the department, and director of the training course for social and civic work at the University of Minnesota.

Professor John Maurice Clark, of the University of Chicago, has been promoted from the rank of associate professor to a full professorship.

Dr. Harry T. Collings, of the University of Pennsylvania, spent the summer in Mexico doing work for the Department of Commerce.

Professor H. W. Cordell has been made head of the department of history and economics in the State College of Washington.

Mr. Arthur C. Coons, of the University of Pennsylvania, has resigned his instructorship to return to his home in California.

Mr. Walter J. Couper comes to Yale University as instructor in political economy.

Mr. Thomas S. Craig has been appointed instructor in economics at the Massachusetts Institute of Technology.

Mr. Morgan Cushing, instructor in finance at the University of Philadelphia, has resigned in order to teach economics at Bowdoin College.

Professor Clive Day, of Yale University, is taking a year's leave of absence and expects to spend most of it in travel in Europe.

Dr. Samuel H. De Vault, recently employed by the Bureau of the Census as an expert special agent, has been chosen assistant professor of agricultural economics at the Agricultural College of Maryland.

Professor Arthur Stone Dewing, formerly assistant professor, has been given the rank of associate professor of finance at the Graduate School of Business Administration, Harvard University.

Dr. Z. C. Dickinson, of the University of Minnesota, gave courses in economics in the summer school at the University of Pennsylvania.

Mr. E. F. Dummeier has been raised to the rank of assistant professor of economics at Washington State College.

Mr. C. R. Fay, fellow of Christ's College, Cambridge, has been appointed professor of economic history in the University of Toronto.

Mr. H. M. Fletcher, instructor at Princeton University during the past year, will be a graduate student in Stanford University this year.

Mr. Joseph K. Folsom has been appointed assistant professor of economics at Dartmouth College.

Mr. L. E. Garwood, of Coe College, has been appointed lecturer in political economy at the University of Chicago.

Professor A. P. Haake, of the University of Wisconsin, will begin his work as professor of economics in Rutgers College this month.

Professor C. O. Hardy has resigned his position at the University of Chicago in order to accept a professorship in the School of Commerce and Administration of the University of Iowa.

Mr. S. E. Harris, instructor during the past year at Princeton University, is joining the tutorial staff at Harvard University.

Mr. Albert J. Hettinger, Jr., instructor in the Graduate School of Business Administration, Harvard University, has been promoted to the rank of assistant professor of statistics.

Mr. Frank N. Houghton has been appointed instructor in economics at the Massachusetts Institute of Technology.

Dr. M. H. Hunter has been promoted from assistant professor to associate professor of economics at the University of Illinois.

Mr. Olin Ingraham has been appointed instructor in economics at the Massachusetts Institute of Technology.

Mr. W. D. Jordan has been made instructor in political economy at Yale University.

Professor F. H. Knight, of the University of Iowa, has been raised from the rank of associate professor of economics to a full professorship.

Mr. V. W. Lanfear, formerly adjunct professor at the University of Texas, has been appointed assistant professor of political economy at Yale University.

Mr. Chester F. Lay, instructor in the School of Commerce and Administration of the University of Chicago, has accepted an appointment to a professorship at Robert College, Constantinople, where he will have charge of the courses in business administration.

Mr. Ray V. Leffler returns to Dartmouth College as assistant professor of economics, after a year spent in teaching at Yale University.

Mr. D. P. Locklin, of Harvard University, has been made instructor in economics at the University of Illinois.

Professor H. L. Lutz, of Oberlin College, served as special adviser to the committee on tax revision of the state of Washington during the early summer, and gave courses at Stanford University during the summer quarter.

Mr. John E. McDonough has been appointed instructor in political economy at Yale University.

Professor J. G. McKay has left the University of Wisconsin to begin work as director of highway economics, Bureau of Public Roads, Department of Agriculture.

Dr. George B. Mangold, of the Missouri School of Social Economy, has been lecturing on problems of child welfare and constructive social work at the University of California during the summer session.

Professor H. H. Maynard, of Washington State College, gave courses in economics at the summer session of the State University of Iowa.

Dr. E. J. Miller has been appointed instructor in the department of economics at the University of Illinois.

Mr. Waldo F. Mitchell, of the University of Chicago, has been made head of the newly established department of economics and business administration at Evansville College, Evansville, Indiana, with the rank of professor.

Mr. John Morris, of the University of Pennsylvania, has resigned his instructorship in economics to accept one in merchandising.

Dr. William A. Morris has been promoted from the rank of associate professor to that of professor of English history in the University of California.

Professor H. G. Moulton, of the University of Chicago, has resigned to accept an appointment as director of the Institute of Economics, founded by the Carnegie Corporation. He will assume his duties in Washington, D. C., in September.

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Dr. M. N. Nelson has resigned his instructorship in marketing at the University of Minnesota in order to accept a position as instructor in economics at the University of Illinois.

Professor Leo D. O'Neil, director of the Havana Branch of Boston University, College of Business Administration, is returning to Boston as head of the department of foreign trade.

Dr. Thomas Walker Page, former chairman of the United States Tariff Commission, and until recently head of the department of economics of the University of Virginia, has resigned from the University of Virginia to join the staff of the Institute of Economics at Washington, D. C.

Dr. E. M. Patterson was selected by the American Academy of Political and Social Science to make a study of the Genoa Conference and European conditions. He obtained leave of absence from his work at the University of Pennsylvania and sailed for Europe in April, returning the first of September.

Dr. Howard Patterson, of the University of Pennsylvania, has been promoted from instructor to assistant professor of economics.

Dean C. A. Phillips, of the college of Commerce of the State University of Iowa, gave courses at the summer session of Columbia University.

Dr. H. H. Preston has been raised to the rank of full professor in the College of Business Administration at the University of Washington, Seattle.

Professor E. A. Ross, of the University of Wisconsin, returns in September from Mexico where he has been spending the summer making a study of the country and the people.

Mr. William A. Schoenfeld has been appointed agricultural economist in the Federal Bureau of Agricultural Economics. He will have supervision of the research work in marketing, correlating the activities of the various divisions.

Dr. Karl W. H. Scholz, of the University of Pennsylvania, spent the summer in Germany studying German taxation.

Mr. Merrill E. Shoup has been made instructor in the department of economics at Brown University, and will teach in the field of industrial relations.

Dr. Earl R. Sikes has been appointed assistant professor of economics at Dartmouth College.

Dr. Norman J. Silberling, formerly a member of the economics staff in Dartmouth College, has been appointed associate professor of economics in the University of California.

Dr. Mark Smith, special expert of the United States Tariff Commission, has resigned from the commission to join the staff of the Institute of Economics at Washington, D. C.

Professor W. H. Spencer, of the University of Chicago, has been raised to the rank of associate professor.

Professor Charles Strong will return to the department of economics of

Boston University, College of Business Administration, carrying work in marketing and commercial resources.

Professor Harry R. Tosdal, of the Graduate School of Business Administration, Harvard University, has been promoted from assistant professor to professor of marketing.

Mr. J. B. Trant, of Howard College, Birmingham, Ala., has been appointed instructor in economics at the University of Illinois.

Dr. Donald S. Tucker, of the Massachusetts Institute of Technology, has been promoted from the rank of assistant professor to that of associate professor of economics.

Professor Abbott Payson Usher, who for the past two years has had charge of the work in industrial history at the College of Business Administration of Boston University, has accepted an appointment in his field with Harvard University.

Dr. Kossuth M. Williamson, of Wesleyan University, has been promoted from the rank of associate professor of economics to a full professorship.

Dr. Joseph Willits, of the University of Pennsylvania, has been teaching during the summer at the University of California.

Dr. Philip G. Wright, special expert of the United States Tariff Commission, has resigned from the commission to join the staff of the Institute of Economics at Washington, D. C.

Mr. W. E. Zeuch, who has been in charge of research work on the business cycle at the University of Wisconsin during the past year, has accepted a position as instructor in economics at the University of Illinois.

Mr. E. H. Downey was drowned on July 9, 1922. Mr. Downey received his doctorate degree at the University of Wisconsin and has since been active in the field of workmen's insurance. At the time of his death he was actuary for the Pennsylvania Compensation Bureau.

